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THE

MISCELLANEOUS DOCUMENTS

OF THE

HOUSE OF REPRESENTATIVES

FOR THE

FIRST SESSION OF THE FIFTY-FIRST CONGRESS.

1889-'90.

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REPORTS

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CONSULAR REPORTS

ON

STEAM-SHIP SUBSIDIES.

No. 112.—JANUARY, 1890.

THE UNITED KINGDOM.*

REPORT BY CONSUL-GENERAL NEW, OF LONDON.

The British Government does not grant subsidies, in the general sense of that term, to any steam-ship company, but the post-office authorities make contracts for the conveyance of mails to the different parts of the world with the steam-ship companies having steamers sailing to those ports.

I transmit herewith two copies of the "Arrangements of the Foreign and Colonial Packet Service," corrected to July 1, 1889, a publication issued by the British post-office, giving a list of the contracts entered into with the different steam-ship companies for the conveyance of mails by sea, showing the lines of communication, how often dispatched, payment made to each company, etc. No payment other than for the conveyance of mails is specially made for maintaining communication between Great Britain and Central and South America and the West Indies.

I inclose a statement of the amount paid by the British post-office for the conveyance of mails for the last twenty years; also statements showing the average rates of freight charged by the steam-ship companies conveying the mails to the ports of Colon, La Guayra, Rio de Janeiro, Buenos Ayres, and Valparaiso. I am informed that the British Government grants some aid to companies building large steam-ships, with a contract that such vessels shall in time of war be called into the service of the Government as war-ships and transports, but the amount of such payments I have not been able to ascertain.

JNO. C. NEW,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
London, September 3, 1889.

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* This report is reprinted from CONSULAR REPORTS No. 108, September, 1889.

POST-OFFICE PACKET SERVICE

(Inclosure 1 in Consul-General New's report.)

Statement showing the expenditure on account of the post-office packet service from the year 1868-'69 to the year 1888-'89, inclusive.

Year.	Amount.	Year.	Amount.
1868-'69	$5,454,530	1879-'80	$3,865,260
1869-'70	6,043,630	1880-'81	3,592,230
1870-'71	6,091,345	1881-'82	3,524,330
1871-'72	5,721,370	1882-'83	3,600,800
1872-'73	5,695,510	1883-'84	3,608,355
1873-'74	5,596,060	1884-'85	3,642,065
1874-'75	4,920,770	1885-'86	3,662,505
1875-'76	4,433,235	1886-'87	3,625,915
1876-'77	4,255,130	1887-'88	3,490,860
1877-'78	3,813,800	1888-'89	3,184,435
1878-'79	3,891,205		

Abstract of contracts for the conveyance of foreign and colonial mails by sea.

[Inclosure 2 in Consul-General New's report.]

Line of communication.	How often.	Departure.	Number, size, and character of vessels.
Dover and Calais	Daily	From Dover on arrival of night mail train from London; from Calais on arrival of night mail train from Paris.	A sufficient number of efficient steam-vessels, with a small steam-vessel for landing and embarking mails, etc., at Calais.
Brindisi to Bombay and *vice versa* (via the Suez Canal).*	Weekly	From Brindisi every Monday.	A sufficient number of efficient steam-vessels.
Brindisi to Shanghai and *vice versa* (via the Suez Canal).*	Fortnightly	From Brindisi every alternate Monday.	Do.
Brindisi to Adelaide and *vice versa* (via the Suez Canal).†	do	do	Do.
Naples to Adelaide and *vice versa* (via the Suez Canal).‡	do	From Naples every alternate Monday	Do.
Liverpool to New York§	Twice a week	From Liverpool every Wednesday and Saturday, and from Queenstown the following days.	Their fastest vessels, both winter and summer.
Bermuda and New York	Fortnightly	From Bermuda every alternate Thursday.	A sufficient number of efficient steam-vessels.

* The contract stipulates that on six months' notice Salonica may be substituted for Brindisi, and for a modification of the services whenever political circumstances require it.

† The contract stipulates that on three months' notice Naples may be substituted for Brindisi, and also provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne and Sydney, and the homeward packet is to start from Sydney and call at Melbourne.

‡ The contract provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne, and the homeward packet is to start from Sydney and call at Melbourne; but the contractors are at liberty to continue the outward voyage beyond Sydney to Newcastle, and to commence the homeward voyage from that port.

§ These packets convey mails on the outward voyage only.

Abstract of contracts for the conveyance of foreign and colonial mails by sea—Continued.

Line of communication.	How often.	Departure.	Number, size, and character of vessels.
Southampton to Buenos Ayres.*	Twice a month †	From Southampton on 9th and 24th of each month, except when those dates fall on Sunday, then on the following days.†	A sufficient number of efficient steam-vessels.
To and from West Indies	Fortnightly	From Southampton every alternate Thursday.‡	Do.
Panama to Valparaiso*	Twice at least in each calendar month.§	From Panama every alternate Wednesday.§	Do.
To Brazil, River Plate, and Pacific (via Straits of Magellan).*	Fortnightly	From Liverpool every alternate Wednesday and from Bordeaux every alternate Saturday.	Do.
Aden, Zanzibar, and Lindi	Once every 4 weeks	From Aden on arrival of mail packet from Suez.	Do.
To and from the west coast of Africa.	Weekly	From Liverpool every Saturday by a packet of either country alternately.	Do.
To and from the Cape of Good Hope. To touch at St. Helena outward on every fourth voyage, and at St. Helena and Ascension homeward on every fourth voyage.‖	do	From Southampton every alternate Friday; from Dartmouth every alternate Friday.	Do.

Line of communication.	Contractors.	Contract.		
		When made.	Commenced.	Terminates.
Dover and Calais	Southeastern Railway Company, and London, Chatham, and Dover Railway Company. Agent, J. S. Forbes, Victoria Station, Pimlico, S. W.	Mar. 25, 1878	June 20, 1878	On 12 months' notice.
Brindisi to Bombay and *vice versa* (via the Suez Canal).¶	Peninsular and Oriental Steam Navigation Company, 122 Leadenhall street, E. C. A. M. Bethune, secretary.	Mar. 18, 1887	Feb. 1, 1888	On January 31, 1898, if twenty-four months' notice be given.
Brindisi to Shanghai and *vice versa* (via the Suez Canal).¶	do	do	do	Do.
Brindisi to Adelaide and *vice versa* (via Suez Canal).**	do	Jan. 19, 1888	do	On January 31, 1895.

*These packets convey mails on the outward voyage only.

†By an arrangement sanctioned on the 15th of January, 1888, (Min. 26 O.) the company is permitted to dispatch a packet on every alternate Thursday, commencing on the 15th of March, instead of on the 9th and 24th of each month.

‡The contract stipulates that on three months' notice Plymouth may be substituted as the port of departure of the outward mails, in which case the company is to receive an additional yearly payment of £1,250.

§The company has arranged to dispatch a packet every week.

‖The packets of both companies are to call both on the outward and homeward voyages at Lisbon or Madeira for the purpose of landing and taking up mails, and at the Canary Islands, at their option, for the purpose of landing and taking up passengers and cargo. Arrangements have been made for serving the islands of St Helena and Ascension, for the most part, by the intermediate steamers of the Union Steam-ship Company and of the Castle Mail Packets Company, instead of by the regular Cape packets, the regular packets being used only on a few exceptional occasions, on which no suitable intermediate steamer may be available. (*Vide* Min. No. 295 P.)

¶The contract stipulates that on six months' notice Salonica may be substituted for Brindisi, and for a modification of the services whenever political circumstances require it.

**The contract stipulates that on three months' notice Naples may be substituted for Brindisi, and also provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne and Sydney, and the homeward packet is to start from Sydney and call at Melbourne.

Abstract of contracts for the conveyance of foreign and colonial mails by sea — Continued.

Line of communication.	Contractors.	Contract.		
		When made.	Commenced.	Terminates.
Naples to Adelaide and *vice versa* (via the Suez Canal).[*]	Orient Steam Navigation Company, 13 Fenchurch avenue. S. Waymouth, R.N., secretary.	Jan. 23, 1888	June 20, 1878	On January 31, 1895.
Liverpool to New York[†]......	Oceanic Steam Navigation Company, 10 Water street, Liverpool; and Cunard Steam-ship Company, 8 Water street, Liverpool.	May 3, 1887	Mar. 1, 1887	On 12 months' notice.
Bermuda and New York......	Quebec Steam-ship Company, Quebec, Canada. Agents, A. E. Outerbridge & Co., 51 Broadway, New York.	Oct. 9, 1888	Sept. 1, 1876	On December 31, 1889, if 6 months' previous notice be given.
Southampton to Buenos Ayres.[†]	Royal Mail Steam-packet Company, 18 Moorgate street, E. C. J. M. Lloyd, secretary.	June 15, 1876	Jan. 1, 1889	On 6 months' notice.
To and from West Indies.....	.........do................................	Mar. 18, 1885	July 1, 1885	On June 30, 1890.[‡]
Panama to Valparaiso[†]........	Pacific Steam Navigation Company, 31 James street, Liverpool. Frederick Alcock, secretary.	Jan. 8, 1878	July 1, 1878	On 6 months' notice.
To Brazil, River Plate, and Pacific (via Straits of Magellan).[†]	.........do................................	......do...........	......do...........	Do.
Aden, Zanzibar, and Lindi...	British India Steam Navigation Company, Glasgow.	Oct. 9, 1883	Sept. 26, 1883	On October 8, 1889.[§]
To and from the west coast of Africa.	African Steam-ship Company, 21 Great St. Helen's, E. C. E. Bicker-Caarten, secretary; British and African Steam Navigation Company, 175 West George street, Glasgow. Charles Gibson, secretary.	....	....	On 3 months' notice.
To and from the Cape of Good Hope. To touch at St. Helena outward on every fourth voyage, and at St. Helena and Ascension homeward on every fourth voyage.[‖]	Union Steam-ship Company, 11 Leadenhall street, E. C. E. A. Hart, secretary; Castle Mail Packets Company. Managers and agents, Donald Currie & Co., 4 Fenchurch street, E. C.	Feb. 1, 1888[¶]	Oct. 1, 1888	On September 30, 1893, if 12 months' notice be given.

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[*] The contract provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne, and the homeward packet is to start from Sidney and call at Melbourne; but the contractors are at liberty to continue the outward voyage beyond Sidney to Newcastle, and to commence the homeward voyage from that port.

[†] These packets convey mails on the outward voyage only.

[‡] Notice to terminate given on the 11th of February, 1888.

[§] This contract has been extended for one year from October 9, 1888, with certain contingent modifications. (Min. 675 O.)

[‖] The packets of both companies are to call both on the outward and homeward voyages at Lisbon or Madeira for the purpose of landing and taking up mails, and at the Canary Islands, at their option, for the purpose of landing and taking up passengers and cargo. Arrangements have been made for serving the islands of St. Helena and Ascension, for the most part, by the intermediate steamers of the Union Steam-ship Company and of the Castle Mail Packets Company, instead of by the regular Cape packets, the regular packets being used only on a few exceptional occasions, on which no suitable intermediate steamer may be available. (*Vide* Min. No. 295 P.)

[¶] These contracts have been entered into with the Government of the Cape of Good Hope.

Abstract of contracts for the conveyance of foreign and colonial mails by sea — Continued.

Line of communication.	Payment.	Contract time.	Deduction for over time.	Penalty for general non-performance.
Dover and Calais..........	£8,000 per annum and £5 per trip when the voyage in either direction is performed in less than contract time.*	To Calais in 2 hours and 5 minutes; from Calais in 2 hours and 10 minutes.†	Deduction of £5 from accumulated premiums if the duration of the voyage exceeds the time allowed by 15 minutes.	£7,000
Brindisi to Bombay and *vice versa* (via the Suez Canal).‡	£265,000 per annum...	344 hours outwards, 344 hours homewards, inclusive of stops.	£100 for every 12 hours outwards; £200 for every 12 hours homewards.§	40,000
Brindisi to Shanghai and *vice versa* (via the Suez Canal).‡	......do......................	846 hours outwards, 870 hours homewards, inclusive of stops.	.........do......................	40,000
Brindisi to Adelaide and *vice versa* (via the Suez Canal).‖	£85,000 per annum.....	32 days and 12 hours..	£100 for every 24 hours, both outwards and homewards.§	20,000
Naples to Adelaide and *vice versa* (via the Suez Canal).¶	......do......................	768 hours..................	.........do......................	20,000
Liverpool to New York.**	For letters and post-cards, 3*s*. per lb.; newspapers, books, and patterns, 3*d*. per lb., excepting for correspondence coming from union countries, on which the union sea rates alone are paid.	....	....	....
Bermuda and New York.	Letters and post-cards 5 francs per kilogram, and 50 centimes per kilogram for other mail matter.	69 hours 30 minutes, both outwards and homewards.	Such sum as the postmaster-general may determine, but not exceeding in amount such part of the total payment as shall be duly apportionable to the single voyage.§	....
Southamton to Buenos Ayres.**	For letters, 10½*d*. per ounce; newspapers, 3*d*. per pound; books and patterns, 5*d*. per pound.†† ‡‡	To Buenos Ayres in 34 days 14 hours, inclusive of stops.	One-eighth part of ordinary payment for every 24 hours.††	500

* The contractors are bound to provide a steam-vessel for any special purpose on payment of £40 per round voyage. The contractors agree to provide a special steamer on Friday nights for the conveyance of the Indian mails from Dover to Calais for a payment of £25 per trip. (*Vide* Min. 364 K.)

† Fifteen minutes additional are allowed whenever it may be necessary to land or embark the mails at Calais by means of the small steam-vessel.

‡ The contract stipulates that on six months' notice Salonica may be substituted for Brindisi, and for a modification of the services whenever political circumstances require it.

§ These deductions are conditional, and not to be enforced when the excess of time arises from causes beyond the control of the company.

‖ The contract stipulates that on three months' notice Naples may be substituted for Brindisi, and also provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne and Sydney, and the homeward packet is to start from Sydney and call at Melbourne.

¶ The contract provides for a modification of the services whenever political circumstances require it; for instance, in the event of the Suez Canal not being practicable the mails are to be conveyed via the Cape of Good Hope. Certain mails are to be carried from and to a port in the United Kingdom. The outward packet is to continue her voyage to Melbourne, and the homeward packet is to start from Sydney and call at Melbourne; but the contractors are at liberty to continue the outward voyage beyond Sydney to Newcastle, and to commence the homeward voyage from that port.

** These packets convey mails on the outward voyage only.

†† By letter dated February 19, 1878, the company agrees to receive 8*s*. 11*d*. per pound for letters and 4*d*. per pound for all other matter. In consideration of this, penalties under tenth and twenty-third clauses of the contract no longer to be paid.

‡‡ By letter dated June 26, 1889, the company agrees to receive 5*s*. 5*d*. per pound for letters and post-cards conveyed on behalf of foreign countries, members of the postal union. (*Vide* Min. 280 P.)

Abstract of contracts for conveyance of foreign and colonial mails by sea—Continued.

Line of communication.	Payment.	Contract time.	Deduction for over time.	Penalty for general non-performance.
To and from West Indies.	£90,000 per annum *		£25 for every 24 hours †	£20,000
Panama to Valparaiso ‡	For letters, 4*s*. 5½*d*. per pound; newspapers, books, and patterns, 2*d*. per pound.			
To Brazil, River Plate, and Pacific (via Straits of Magellan). ‡	For letters, 8*s*. 11*d*. per pound; newspapers, books, and patterns, 4*d*. per pound. §			
Aden, Zanzibar and Lindi.	£7,950 per annum ‖			10,000
To and from the west coast of Africa.	For letters, a sum equal to amount of sea postage; for soldiers' and sailors' letters, 0½*d*. each; for newspapers, 0½*d*. each; for books and patterns, 5*d*. per pound. ¶			
To and from the Cape of Good Hope. To touch at St. Helena outward on every fourth voyage, and at St. Helena and Ascension homeward on every fourth voyage. **	£26,000 to each company, and a further sum of £300 for the first year, increasing annually by £50 until a maximum of £500 is reached, in respect of the conveyance of parcel mails.	20 days on a direct voyage, and 20 days 18 hours when St. Helena is called at outward, and St. Helena and Ascension homeward; 20¾ days when a call is made at St. Helena only on the homeward voyage.	£2 1*s*. 8*d*. per hour for the first 12 hours beyond 20 days 12 hours, 21 days, or 21 days 6 hours, respectively; £4 3*s*. 4*d*. per hour for the next 12 hours, and at the rate of £6 5*s*. per hour for every complete hour thereafter, but not to exceed £450 for any one voyage. ††	

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* The contract stipulates that on three months' notice Plymouth may be substituted as the port of departure of the outward mails, in which case the company is to receive an additional yearly payment of £1,250.

† The contract provides for an allowance being made in case of under time on some voyages as a set-off against deductions for over time on other voyages.

‡ These packets convey mails on the outward voyage only.

§ By letter dated June 18, 1889, the company agrees to receive 5*s*. 5*d*. per pound for letters and post-cards conveyed on behalf of foreign countries, members of the postal union. (*Vide* Min. 302 P.)

‖ This payment is made by the treasury.

¶ An abatement from the amount accruing to the company is made in the event of delay in sailing from Liverpool up to six days, inclusive. (*Vide* correspondence in 1873.) By letters dated the 5th and 12th of June, 1879, the African Steam-ship Company and British and African Steam Navigation Company respectively agree that for correspondence carried on behalf of foreign countries they are to be paid the sea rates which are actually accounted for to England by the foreign countries, under the provisions of the postal union convention.

** The packets of both companies are to call both on the outward and homeward voyage at Lisbon or Madeira for the purpose of landing and taking up mails, and at the Canary Islands, at their option, for the purpose of landing and taking up passengers and cargo. Arrangements have been made for serving the islands of St. Helena and Ascension, for the most part, by the intermediate steamers of the Union Steam-ship Company and of the Castle Mail Packets Company, instead of by the regular Cape packets, the regular packets being used only on a few exceptional occasions, on which no suitable intermediate steamer may be available. (*Vide* Min. No. 295 P.)

†† These deductions are not to be enforced if the vessels shall arrive on the outward or homeward voyages before the hour of 6 a. m. on the 21st day, nor when the excess of time arises from causes beyond the control of the companies.

[Inclosure 3 in Consul-General New's report.]

The following table shows rates of freight from London by the steam-ships of the Royal Mail Steam-packet Company. For ports called at by the respective steamers, see monthly sailing lists or other notices. Offices: Head — London, 18 Moorgate street; branches — Southampton, Canute Road; Manchester, 9 Albert Square. Telegrams: "Omarius," London, Southampton, or Manchester.

Per ton measurement of 40 cubic feet, or per ton gross weight of 2,240 pounds, at option of company, with 10 per cent. primage in addition. Freight payable on delivery of bills of lading. Minimum charge for freight through from London, £1 3*s.* 6*d.*; from Southampton, £1 1*s.*

Brazil and River Plate service, January, 1889.

Articles.	Lisbon.*		Pernambuco or Maceio.†		Bahia.	
	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.
Special.						
	Shillings.	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*
Silks, silk and cotton or silk and woolen mixtures, silk velvets, opium, and other valuable goods	30	35	100	105	100	105
Cigars, indigo, plated-ware, needles, quicksilver	25	30	65	70	65	70
Fine goods.						
Cottons and linens of all descriptions, shirts, woolens, worsteds, baizes, flannels, and union cloths (in cases), marsala and eiderdown quilts, gloves, and manufactured goods generally.... Apothecary wares, apparel, arms, books, boots and shoes, curios and Japanese goods, cutlery, drills, dental materials, dress goods, drugs and medicines, furs, haberdashery, india-rubber goods,‖ laces, leather belting, leather cloth, mercury, muslins, perfumery, porcelain, private effects, saddlery and harness, shellac, stationery, scientific, surgical, and telegraphic instruments, type, umbrellas (silk), varnish, wines and spirits, plate glass.....	20	25	50	55	50	55
Coarse goods.						
Butter, cheese (English), cinnamon and other spices, cocoa, confectionery, groceries, lard, pickles, tea, blankets, carpets, floor cloth, hosiery (cotton and woolen), ink, pianos, starch, tobacco (leaf), oil, wax, woolens, worsteds, baizes, flannels, and low union cloths (in bales), druggets, coverlets, rugs, umbrellas (cotton), machinery (small)....	20	20	45	50	45	50
Cotton or linen yarns, sewing cottons, twist or thread, hats and bonnets..........	20	20	40	45	40	45

* Five per cent. extra charged to these ports to cover cost of landing the goods.

† Ten per cent. extra charged to these ports to cover cost of landing the goods.

‡ The Southampton rates include dock and shipping charges on ordinary goods, except in the case of the minimum bill of lading rate.

‖ India-rubber water-proof goods requiring special stowage will be charged freight and a half.

Brazil and River Plate service, January, 1889—Continued.

Articles.	Lisbon.*		Pernambuco or Maceio.†		Bahia.	
	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.
Rough goods.	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*
Bedsteads, bedding, biscuits, brushes, candles, canvas, chicory, copper, cotton-waste, Epsom and Glauber salts, fans (common Japanese), furniture, gas-fittings, hardware, hemp, leather (unwrought), matting, nails, paints, paper-hangings, lead-piping, printing and packing paper, tarred and manila rope (per ton measurement), sanitary-ware, saltpeter, sheep dip, soap (common), soda (common), shot, tin, tin-plates, twine, yellow metal	20	20	40	45	40	45
Beer and mineral waters	By special arrangement.					
Glass bottles, glass-ware, and hollow-ware						
Earthen-ware and coir rope						
Soda-ash, caustic soda						
Hessians and Dundee bagging (in bales)						
Agricultural implements, bar and sheet iron, cement, fire-bricks, galvanized-iron, pig-lead, portable engines, railway materials, rice, salt, threshing-machines, timber, tubing, wagon-work, wire, zinc, machinery (heavy), and other similar cargo						

Articles.	Santos.		Rio de Janeiro.		Montevideo or Buenos Ayres.	
	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.	From Southampton.‡	Through from London.
Special.	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*
Silks, silk and cotton or silk and woolen mixtures, silk velvets, opium, and other valuable goods	100	105	100	105	100	105
Cigars, indigo, plated-ware, needles, quicksilver	60	65	60	65	60	65
Fine goods.						
Cottons and linens of all descriptions, shirts, woolens, worsteds, baizes, flannels, and union cloths (in cases), marsala and eiderdown quilts, gloves, and manufactured goods generally....	50	55	45	50	(§)	(§)
Apothecary wares, apparel, arms, books, boots and shoes, curios and Japanese goods, cutlery, drills, dental materials, dress goods, drugs and						

* Five per cent. extra charged to these ports to cover cost of landing the goods.

† Ten per cent. extra charged to these ports to cover cost of landing the goods.

‡ The Southampton rates include dock and shipping charges on ordinary goods, except in the case of the minimum bill of lading rate.

§ By arrangement.

Brazil and River Plate service, January, 1889—Continued.

Articles.	Santos.		Rio de Janeiro.		Montevideo or Buenos Ayres.	
	From Southampton.*	Through from London.	From Southampton.*	Through from London.	From Southampton.*	Through from London.
Fine goods—Continued.	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings.*	*Shillings*
medicines, furs, haberdashery, **india-rubber goods**,† laces, **leather** belting, **leather cloth**, mercury, muslins, **perfumery, porcelain**, private effects, **saddlery and harness**, shellac, stationery, **scientific, surgical**, and telegraphic **instruments, type**, umbrellas (silk), **varnish, wines** and spirits, plate glass.....						
Coarse goods.						
Butter, cheese (English), cinnamon and **other spices**, cocoa, confectionery, **groceries, lard**, pickles, tea, blankets, **carpets, floor-cloth**, hosiery (cotton and **woolen), ink**, pianos, starch, tobacco **(leaf), oil, wax**, woolens, worsteds, **baizes, flannels**, and low union cloths **(in bales)**, druggets, coverlets, rugs, **umbrellas** (cotton), machinery (small)....	50	55	40	45	(‡)	(‡)
Cotton or linen yarns, sewing cottons, **twist or thread**, hats and bonnets..........	45	50	40	45	(‡)	(‡)
Rough goods.						
Bedsteads, bedding, biscuits, brushes, **candles, canvas**, chicory, copper, cotton-**waste, Epsom and** Glauber salts, fans **(common Japanese)**, furniture, gas-**fittings, hardware**, hemp, leather (**unwrought), matting**, nails, paints, paper-**hangings, lead-piping**, printing and **packing paper, tarred** and manila rope **(per ton measurement)**, sanitary-ware, **saltpeter, sheep dip**, soap (common), **soda (common)**, shot, tin, tin-plates, twine, yellow metal........	45	50	40	45	(‡)	(‡)
Beer and mineral waters	By special arrangement.					
Glass bottles, glass-ware, and hollow-ware..........						
Earthen-ware and [illegible]..........						
Soda-ash, c[illegible] coir rope.*..........						
Hessians [illegible]..........						
Agricultu[illegible] [illegible]gging (in bales). Iron, [illegible] bar and sheet [illegible], galvanized- [illegible] engines, rail- [illegible]t, threshing- [illegible]hing, wagon- [illegible]inery (heavy), [illegible]go..........						

[illegible] rates include d[illegible]harges on ordinary goods, except the case of the [illegible]g rate.

[illegible]ater-proof good[illegible]wage will be charged freight and a half. [illegible]ent.

[illegible]ny to have [illegible]ging 1 per cent. ad valorem from Southampton. [illegible] above-m[illegible]ough bills of lading are issued in London.

[Inclosure 4 in Consul-General New's report.]

The following table shows rates of freight (to be paid on shipment) through from London (per ton measurement of 40 cubic feet or per ton gross weight of 2,240 pounds, at option of company) for ordinary merchandise, by the mail steam-ships of the Royal Mail Steam-packet Company leaving Southampton every alternate Thursday, and by the freight steamers which leave Southampton every fourth Saturday, commencing January 19. For ports called at by the several departures see monthly sailing notices. Offices: London, 18 Moorgate street; Southampton, Canute Road; Manchester, 9 Albert Square.

West Indies and South American service.

Ports.	Fine goods.*	Coarse goods.†	Primage.
	Shillings.	*Shillings.*	
Barbadoes	45	45	10 per cent.
Demerara‡	45	45	Do.
St. Vincent, Grenada	55	55	Do.
Trinidad	45	45	Do.
Tobago	55	55	Do.
St. Lucia§	55	55	Do.
Martinique, Guadaloupe	65	55	Do.
Dominica	55	55	Do.
Montserrat	75	65	Do.
Antigua, St. Kitts	55	55	Do.
St. Thomas	55	55	Do.
Jacmel	65	65	Do.
Jamaica (Kingston)	40	35	Do.
Jamaica out ports: Morant Bay, Port Morant, Port Antonio, Annotto Bay, Port Maria, St. Ann's Bay, Dry Harbor, Falmouth, Montego Bay, Lucea, Sav-la-Mar, Black River, Alligator Pond, Milk River	45	40	Do.
Limon	50	50	Do.
Colon‖	60	60	Do.
Savanilla‖ ¶	50	50	Do.
Grey Town	65	65	Do.
La Guayra**, Puerto Cabello**, Curaçao	65	65	Do.
Carthagena¶	50	50	Do.
Panama	107½	97½	5 per cent.
Punta Arenas, San Juan del Sur, Corinto, Amapala, La Union, La Libertad, Acajutla, San José de Guatemala, Champerico, Barra de Ocos††	‡‡95	‡‡95	Do.
San Benito, Tonala, Salina Cruz, Port Angel, Acapulco, Manzanillo, San Blas, Mazatlan	‡‡115	115	Do.
San Francisco	‡‡85	‡‡85	Do.

*Fine goods: Apothecary wares, arms, apparel, books, cashmere, cigars, cottons (printed), cotton stuffs, cottons (bleached and dyed), crape, cutlery, cinnamon, drugs, engravings, essences, encaustic tiles, glass (fine), gloves (not silk or kid), haberdashery, hosiery, linens (bleached), mercery, merinos, millinery, muslins, medicines, perfumery, playing cards, private effects, small wares, stationery, surgical instruments, tobacco, tissues, umbrellas (silk), woolens (fine), worsteds.

† Coarse goods: Boots and shoes, baizes, blankets (cotton), beads, coverlets, canvas, carpets, china-ware, chandeliers, cloves, cumin seed, cottons (unbleached or gray), druggets, floor cloth, fustians, flannel, hats (silk and felt), india-rubber ware, linens (unbleached), leather (dressed), musical instruments, osnaburgs, oil-cloth, quilts, rugs, slop clothing, sewing cotton, saddlery, tea, thread, umbrellas (cotton), woolens (coarse), yarns.

‡ Five per cent. extra for lighterage at this port.

§ Five per cent. extra will be charged to cover landing tax at this port.

‖ Two shillings six pence and primage per ton extra to these ports on shipments by mail steamer, but in case of Savanilla only by direct mail steamer.

¶ Three shillings will be charged on each set of bills of lading in respect to the stamp duty imposed by the Colombian Government.

** Ten pence extra to be charged on each bill of lading for stamp duty abroad.

†† Two shillings six pence net per ton extra to these ports on shipments by mail steamer, but in case of Savanilla only by direct mail steamer.

‡‡ Net.

West Indies and South American service—Continued.

Ports.	Fine goods.*	Coarse goods.†	Primage.
	Shillings.	*Shillings.*	
Victoria, V. I.‡	§105	§105	5 per cent.
Vancouvers City‡	§110	§110	Do.
Honolulu‡	§115	§115	Do.
Buenaventura, Tumaco Manta, Bahia, Esmeralda‖	125	125	Do.
Guayaquil, Payta, Pimentel, Eten, Pacasmayo, Salaverry‖	80	80	Do.
Tumbes, Malabrigo, Chimbote, Samanco, Casma, Huarmey, Supe, Huacho, Chancay, Ancon‖	(¶)	(¶)	Do.
Callao	60	60	Do.
Cerro Azul, Tambo de Morro, Quilca, Lomas‖	(¶)	(¶)	Do.
Pisco, Chala, Mollendo, Ilo, Arica, Pisagua, Iquique, Tocopilla, Antofagasta, Taltal, Carrizal Bajo‖	70	65	Do.
Caldera, Coquimbo, Valparaiso‖	60	60	Do.

*Fine goods: Apothecary wares, arms, apparel, books, cashmere, cigars, cottons (printed), cotton stuffs, cottons (bleached and dyed), crape, cutlery, cinnamon, drugs, engravings, essences, encaustic tiles, glass (fine), gloves (not silk or kid), haberdashery, hosiery, linens (bleached), mercery, merinos, millinery, muslins, medicines, perfumery, playing cards, private effects, small wares, stationery, surgical instruments, tobacco, tissues, umbrellas (silk), woolens (fine), worsteds.

†Coarse goods: Boots and shoes, baizes, blankets, (cotton), beads, coverlets, canvas, carpets, china-ware, chandeliers, cloves, cumin seed, cottons (unbleached or gray), druggets, floor cloth, fustians, flannel, hats (silk and felt), india-rubber ware, linens (unbleached), leather, (dressed), musical instruments, osnaburgs, oil-cloth, quilts, rugs, slop clothing, sewing cotton, saddlery, tea, thread, umbrellas (cotton), woolens (coarse), yarns.

‡On small shipments for Victoria and Vancouvers City a charge of 8*s.*, and to Honolulu a charge of 10*s.* is made to cover transshipment expenses at San Francisco.

§Net.

‖Two shillings six pence and primage per ton extra to these ports on shipments by mail steamer, but in case of Savanilla only by direct mail steamer.

¶Goods for these ports must be cleared at Callao, and the freights from thence to destination and local expenses be paid at Callao. Bills of lading at through rates can not be issued to these ports. Laces, silks, ribbons, velvets, opium, quinine, furs, silk and cotton and silken and woolen mixed goods, silk elastics, silk and kid gloves, scientific instruments, indigo, porcelain, oil paintings, plated-ware, ivory, and other valuable goods, are charged as follows, viz: To Atlantic ports, fine goods rate plus 1 per cent. on value; to Panama, Central American (Pacific) ports, and Mexican (Pacific) ports, 130*s.* and 5 per cent. primage; to San Francisco 150*s.* net; to Victoria (V. I.), 20*s.*, Vancouvers City, 25*s.*, and Honolulu 30*s.*, net, above the rate to San Francisco. The above are subject to the minimum bill of lading rates, and to alteration at any time without notice or advice from the company or their agents, and the company reserves to itself the option of charging for goods of a heavy description at either a dock or an increased through rate. The company will not be responsible for any neglect of the carriers, or other occurrence which may delay the arrival at Southampton in time for shipment of goods conveyed at through rates from London and the provinces, such being established for the convenience of shippers. India-rubber water-proof goods requiring special stowage will be charged freight and a half.

In the case of shipments for South Pacific ports a different classification applies, for particulars of which see special tariff. Through bills of lading issued in London.

BRITISH BOUNTIES AND SUBSIDIES.

SECOND REPORT BY CONSUL-GENERAL NEW, OF LONDON.

I have the honor to inclose herewith a copy of reports respecting bounties or subsidies given in the various European countries* in aid of the construction and running of ships, presented to the House of Commons by command of Her Majesty in pursuance of its address, dated December 19,

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*Reports from this publication are herewith inserted, in their respective places, from Belgium, Denmark, Netherlands, Portugal, Russia, Sweden, and Turkey.

1888; also copies of correspondence respecting subvention of merchant steamers for state purposes, presented to both houses of Parliament by command of Her Majesty, and also the monthly navy list (containing the officers on the active list of the royal navy), page 262a of which gives a list of vessels held by the owners at the disposition of the lords commissioners of the admiralty—(1) special vessels receiving an annual subvention, and (2) additional vessels belonging to certain owners held at the disposition of the admiralty without further subsidy.

From these reports it is officially shown that Great Britain gives an annual subvention to four lines of steam-ships for certain of their vessels, upon condition that said vessels may be held at the disposition of the Government for purchase or hire, the subvention to be paid for a period of years whether the vessels be called for by the Government or not.

It will also appear from the report respecting bounties or subsidies that the governments of Italy, Germany, Russia, France, Spain, the Netherlands, and Portugal grant subsidies or bounties in various ways and on certain conditions.

JNO. C. NEW,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
London, December 11, 1889.

SUBVENTION OF MERCHANT STEAMERS FOR STATE PURPOSES.

[Inclosure 1 in Consul-General New's second report.]

Mr. Ismay (for White Star Line) to Mr. Forwood.

January 31, 1887.

SIR: Referring to the communication of my firm of the 7th of August last on behalf of the Oceanic Steam-ship Company (limited), with reference to the subvention by the admiralty of mercantile vessels specially built for service as armed cruisers, and to our subsequent verbal and written communications relating to the same matter, we now beg to place before you the terms that we are prepared to accept to carry out this scheme.

(1) This company undertake to hold at the disposition of the Government for purchase or hire, at the option of the admiralty, to be exercised from time to time during the continuance of the agreement, the following vessels, namely:

Britannic	£130,000
Germanic	130,000
Adriatic	100,000
Celtic	100,000

(2) In the event of purchase the foregoing prices are to be held as the values of the vessels on the 1st of January, 1887, plus 10 per cent. for compulsory sales, less an abatement of 6 per cent. per annum on the depreciated annual value for the period that may elapse between the 1st of January, 1887, and the date of purchase by the Government. In such case the company shall be entitled to remove from the ship or ships the plated ware, cutlery, crystal, earthenware, blankets, counterpanes, and linens, which articles are not to be considered as part of the equipment of the ships. Such proportionate quantities, however, as may be necessary for the number of officers and warrant officers that would form part of the ship's complement, if used as an armed cruiser, to be left on board free of charge.

(3) In the event of charter by the admiralty the rate of hire of the before-named vessels, all or any, to be at the rate of 20 shillings per gross registered ton per month, the owner providing the crew, or at the rate of 15 shillings per gross registered ton per month, the admiralty finding the crew; all risks of capture and of hostilities being assumed by the admiralty. The company to be allowed seven days on pay at the stipulated rate of hire, for any of the vessels so chartered, for taking down cabin fittings not required by the admiralty, and ten days on the same pay, at the termination of the service, for replacing these fittings, the work of dismounting, dismantling, and re-instating to be performed by the company at the expense of the admiralty.

(4) Should the Government hire and subsequently elect to purchase any steamer under this agreement, three-eighths of the amount of hire paid during the period not exceeding six months immediately preceding the purchase to be allowed by way of rebate from the amount of purchase-money provided by these presents.

(5) During the currency of this contract, any vessels which may be substituted in the mail service for those before named, except the steamers hereinafter referred to, shall also be subject to the like conditions as regards purchase and hire. In the event of purchase the price shall be fixed at the cost price to the company with 10 per cent. additional for compulsory sale less an abatement in the manner already provided in clause 2.

(6) The company have determined to build one or two vessels of high speed, and they agree to construct these vessels of such type and speed as shall render them specially suitable for service as armed cruisers, and in accordance with the plans and specifications already submitted and approved by the admiralty. In consideration the admiralty agree to pay to the company for the vessel or vessels so approved an annual subvention payable half-yearly at the rate of 15 shillings per gross registered ton per annum, such subvention to commence from the date on which the vessels respectively start on their first voyage with the mails, and to be continued yearly for a minimum period of five years, terminable at the end of five years or thereafter on twelve months' previous notice, always provided that no subvention is payable to any vessel after the 1st of January, 1894, if the admiralty shall have given the twelve months' previous notice.

(7) In the event of the company ceasing to carry the mails, under the contract now being concluded, before the company shall have received five annual subventions, under the condition of clause 6, they shall be entitled to receive, for any part of the period that may not have expired at the time of the termination of the mail contract, a subvention at the rate of 20 shillings per gross registered ton per annum in lieu of 15 shillings as already provided. In consideration of the subvention the company shall be precluded from entertaining in connection with any of the vessels referred to in this contract, offers for sale, or charter for a period exceeding five weeks, unless in the case of a longer charter with the approval of the admiralty previously obtained, without first giving to the admiralty the option of exercising the pre-emption to purchase or hire, such option to be exercised as regards any vessel receiving a subvention within seven days, and as regards the other vessels within forty-eight hours.

(8) In the event of the company giving notice to the admiralty it shall be accompanied by such evidence of the bona fide nature of such offer for sale or charter as shall, in the opinion of the admiralty, be satisfactory, otherwise the said notice shall be considered void and of no effect.

(9) In the event of charter by the company for a period in excess of that named, the subvention to be suspended during the currency of such charter, unless continued by previous special arrangement with the admiralty.

(10) Should the admiralty elect to charter any vessel receiving the subvention, the rate of hire for such vessel to be at the rate of 20 shillings per gross registered ton per calendar month, the admiralty providing the crew, or 22*s.* 6*d.* per ton if the owners are required to find the crew. In the former case the admiralty are to assume all risks, in the latter the risk of loss or damage from hostilities only to be for their account. The terms defined in clause 3 for time allowance for dismantling and refitting to apply also to these vessels.

(11) In order that the vessels receiving a special subvention may be ready for service as armed cruisers at the shortest possible notice, the company shall afford to the admiralty every

facility compatible with the use of the vessels as mercantile ships, for fitting on board during the construction of the steamers such permanent fittings and arrangements for their armament on plans to be approved as will enable them to be prepared for service within a week of arrival and discharge of cargo at Liverpool; and as regards the guns contemplated to be placed upon the upper deck, the admiralty are to provide the racers and other fittings and gun mountings, which the company are to keep, if required by the admiralty, in their store-house at Liverpool without charge, ready for immediate placing on board the ships at the cost of the admiralty, and to maintain the same in clean order ready for immediate use free of charge.

(12) It is understood that the crews of the vessels employed under this agreement shall consist as nearly as possible of one-half the men belonging to the royal naval reserve, and the company agree to do every thing in their power to give effect to this requirement at the earliest possible date after the commencement of the agreement.

(13) Should any of the foregoing ships be sold to a British ship-owner approved by the admiralty, the privileges of the agreement are to remain attached to the ship or ships under the new ownership.

(14) The price for the ships receiving the subvention is to be the cost price thereof, subject to the general conditions set out in clause 2, but the admiralty agree not to exercise their pre-emption, as regards purchase only, for two years after their completion.

(15) The subvention payable under this agreement to be suspended on the loss of any ship, or in case they are not being maintained in sea-worthy condition, with board of trade certificate, and the admiralty are at liberty annually to inspect the steamers.

(16) Any additional capital expenditure over new boilers and machinery to the vessels enumerated in clause 1 to be added to the value of the vessel in the event of purchase, but without 10 per cent. bonus for compulsory purchase.

(17) If the vessels under this agreement are hired or purchased by the admiralty so as to interfere with the company's obligations under the mail contract, the admiralty to agree to obtain the concurrence of the post-office to release them from such obligations.

I am, sir, your obedient servant,

THOS. H. ISMAY.

ARTHUR B. FORWOOD, Esq., M. P.,
Parliamentary Secretary to the Admiralty.

Messrs. Ismay, Imrie & Co. undertake to do their best to assist the admiralty to arrange for obtaining the services of the engineers and stokers in case the ships be taken up as cruisers, but, as the result must depend on the individuals, the matter could not be included in the terms of agreement between the admiralty and the company.

THOS. H. ISMAY.
ISMAY, IMRIE & CO.

Admiralty to Mr. Ismay.

February 19, 1887.

SIR: My lords commissioners of the admiralty have had under consideration your letter of 31st of January last, addressed to Mr. Forwood, making detailed proposals for holding at the disposition of Her Majesty's Government, for purchase or hire during the continuance of the agreement, certain specified vessels belonging to the White Star line of steamers; the admiralty to pay a subvention at a fixed rate per gross registered ton per annum on account of the one or two vessels of high speed which your company have determined to build in accordance with plans and specifications approved by the admiralty.

(2) This subvention will commence from the date on which the vessels respectively start on their first voyage with the mails.

(3) My lords desire me to state that they accept these proposals.

I am, sir, your obedient servant,

EVAN MACGREGOR.

T. H. ISMAY, Esq.,
(*Messrs. Ismay, Imrie & Co.*) *Liverpool.*

Admiralty to Treasury.

February 2, 1887.

SIR: I am commanded by my lords commissioners of the admiralty to request that you will inform the lords commissioners of Her Majesty's treasury that the admiralty have had under their consideration proposals for the maintenance of a reserve fleet of mercantile vessels suitable and available for use as armed cruisers.

(2) With a view to attain this object my lords have sought and obtained the co-operation of Her Majesty's postmaster-general. They pointed out to the right honorable gentleman that the vessels most likely to suit the purposes of the admiralty were steamers of such high speed as would, in all probability, be used for the conveyance of mails under contract with his department.

(3) The opportunity of practically developing the scheme has been offered by the negotiations in progress for the conveyance of the mails between the United Kingdom and New York, with the approval of the postmaster-general. Their lordships have had communications with the steam-ship companies which have made proposals for the conveyance of these mails. The negotiations carried on, on behalf of their lordships, with these companies have been conducted so as not to interfere with the terms as regards the conveyance of mails, but rather to enter into agreements supplemental or subsidiary to the contracts for the mail service.

(4) My lords would desire to state that the experience derived from the events of 1885 has led them to believe that true economy and real efficiency would be best promoted by securing the use to the admiralty in times of peace of the fastest and most serviceable mercantile vessels. It will be remembered that in 1885 a sum approximating to £600,000 was expended in retaining the services of several fast merchant steamers so as to prevent their being available for the service of any power inimical to the interests of the United Kingdom. Had arrangements existed similar to those now contemplated their lordships believe that a very considerable portion of this expenditure would have been averted, and a degree of confidence felt by the nation on which it is very difficult to place a money value.

(5) Their lordships consider that subventions or annual payments for pre-emption in the use or purchase of these steamers should only be made with those vessels already existing which have an exceptionally high sea-going speed, or for vessels which may be built possessing great speed and adaptable in their construction as armed cruisers.

(6) As to the standard of speed, the admiralty consider that no vessel of less than 17 to 18 knots at sea would fully meet the object they have in view. They would add further that existing vessels, even with this speed, but which have not been built specially to admiralty designs, would not be so valuable to the country as vessels which meet these requirements. The trades which can, from a mercantile aspect, support vessels of the type and character that their lordships desire to see included in the "reserve fleet of the navy" are very limited. Such steamers are only likely to find a profitable mercantile employment in the passenger and mail service, and particularly in the service to America. Vessels constructed to meet the views of the admiralty would be at a disadvantage in respect to their cargo-carrying powers, and therefore it would be a distinct advantage to the country if every reasonable encouragement were given to ship-owners to build and maintain this description of steamer in the trades that may be expected to support them. The retention of a fleet of "royal naval reserved cruisers" would be obviously of great national advantage. In a pecuniary sense they would serve to limit the necessity felt by their lordships for the construction of fast war-vessels to protect the commerce of the country. Not only would the nation be a pecuniary gainer in respect to the first cost of such vessels, but their annual maintenance, which amounts to a large sum, would be saved were such vessels maintained while not required for admiralty purposes in mercantile trading.

(7) Their lordships have not formed a definite view as to the number of vessels that should be retained in the manner indicated, but, as such steamers are not likely to be constructed in any considerable numbers, it is thought that probably ten would be the maximum number at all likely to be placed at the disposition of the admiralty within the next five years, at a maximum annual charge of £50,000.

(8) Having thus given an outline of the general opinion on the question entertained by their lordships, I have now to communicate the result of negotiations which have taken place with the White Star and Cunard companies. In addition to communications entered into with these companies, the board have been in correspondence with other large ship-owners, but so far the matter has not taken a definite shape except in respect to the Cunard and White Star companies. At the same time their lordships desire it to be understood that the principle they would propose to adopt would be to engage, on terms similar to those they propose to make with the White Star Company, the first steamers that may be offered up to ten in all by any of the British steam-ship companies.

(9) A memorandum giving the outline of an arrangement with the White Star Company has been drawn up and provisionally agreed to by the admiralty and the company, subject to consideration of certain points of detail. To this proposal their lordships hope to obtain the approval of the lords commissioners of Her Majesty's treasury. The complete arrangement will be forwarded in a few days; meantime I am desired to state that in the opinion of their lordships the conditions are most fair and reasonable, and indicate a spirit of liberality on the part of those in charge of the management of the White Star Company.

(10) The company place at the disposition of the admiralty, without any charge, the vessels of their existing fleet, at a fixed price, less an allowance for depreciation for purchase, and at fixed rates in the event of hire; the admiralty having the option of exercising this pre-emption at any time. Although these vessels have not the high speed that the admiralty seek to obtain, yet they are undoubtedly fast ocean-going vessels, and would prove efficient transports. The prices named are fair both for purchase and hire, and afford a protection to the public service against having to pay excessive rates that might be current in time of war.

(11) As regards the conditions as to vessels to be built, their lordships view with much satisfaction the arrangements they have been able to effect in this respect. Plans of two proposed new vessels to be forthwith constructed and completed in about eighteen months or two years have been laid before the director of naval construction. That officer has reported to their lordships that these plans would provide vessels far in advance of any thing that has yet been submitted to the admiralty for the purpose of armed cruisers. They would be of large size, of exceedingly high speed, provided with twin screws, have their engines and boilers placed below the water-line, be divided into numerous compartments, and have a protected steering gear. In regard to capacity, they would be capable of conveying fully two thousand men, whom they could land at Bombay, via the Suez Canal, in fourteen days or via the Cape in twenty-two and one-half days. Their coal capacity would be such that at a cruising speed they could probably keep the sea for a long period, probably not less than three months.

(12) The services of these vessels will be secured to the admiralty upon fair terms as to cost of hire, by the payment of 15 shillings per gross register ton per annum so long as they continue to have the American mail contract, or 20 shillings per ton per annum if the contract be withdrawn from them; such subvention to be continued for a period of five years, or thereafter until notice of termination has been given. These vessels will be completed in about eighteen months, and the subvention will be an annual charge of about £6,500 for each vessel so long as they carry the mails, or £8,500 should the mails be withdrawn from them. Their lordships believe that this sum will be considered reasonable when regard is had to the fact that the special adaptation of the ships will involve considerable first cost to the owners, and will in a measure limit their earning power. As already explained, the possession of such vessels as reserved cruisers will influence the admiralty when considering the extent of Her Majesty's fleet, which it may be necessary to keep up for the protection of our interests.

(13) It is also proposed that the owners should arrange for at least half the crew to consist of men belonging to the royal naval reserve.

(14) As respects the Cunard Company, that company already possesses the two fastest vessels in the British mercantile marine, namely, the *Etruria* and *Umbria*, both of which have a speed at sea of 18 knots an hour. Although these vessels do not possess the advantages that the admiralty would obtain had they been constructed upon designs to meet their require-

ments, yet their lordships think they are vessels of such high speed and such a high class that their retention by the board for national purposes, when required, is desirable. They have therefore entered into negotiations to retain the *Umbria* and *Etruria* and the *Aurania*, a steamer almost equal in speed, on similar terms to those made with the White Star Company.

(15) The annual expenditure for the retention of these vessels will amount to an average of £5,400 each.

(16) My lords desire in conclusion to express a hope that the lords commissioners of Her Majesty's treasury will see fit to concur in the proposals herein set forth, believing that they form the groundwork of a policy which will add materially to the effective naval strength of the nation; be an encouragement to the development of the mercantile marine, and at the same time be an economical arrangement so far as public expenditure is concerned. They will not involve any increase to the proposed estimates of 1887-'88.

I am, sir, your obedient servant.

ARTHUR B. FORWOOD.

The SECRETARY HER MAJESTY'S TREASURY.

Treasury to Admiralty.

TREASURY CHAMBERS, *February 10, 1887.*

SIR: The lords commissioners of Her Majesty's treasury have given their careful consideration to your letter (S. $\frac{1181}{887}$) of the 2d instant, submitting proposals for the maintenance of a reserve fleet of mercantile vessels suitable and available for use as armed cruisers.

In reply, their lordships direct me to state, for the information of the lords commissioners of the admiralty, that they approve of the proposed agreements:

(1) With the White Star Company, according to which the company is (*a*) to place at the disposition of the admiralty, without any charge, the vessels of their existing fleet, at a fixed price, less an allowance for depreciation, for purchase, and at fixed rates in the event of hire, the admiralty having the option of exercising this pre-emption at any time, and (*b*) to build two new vessels to be secured for the use of the admiralty, by the payment of 15 shillings per gross register ton per annum so long as the company continue to have the American mail contract, or 20 shillings per ton per annum if the contract be withdrawn from them; such subvention to be continued for a period of five years, or thereafter until notice of termination has been given; the annual charge involved being about £6,500 for each vessel so long as they carry the mails, or £8,500 should the mails be withdrawn from them.

(2) With the Cunard Company, according to which they are to retain the *Umbria* and *Etruria* and the *Aurania* on similar terms (*b*) to those made with the White Star Company, the annual expenditure for the retention of these vessels amounting to an average of £5,400 each.

My lords are glad to note that these arrangements do not involve any increase to the proposed estimates of 1887-'88.

I am sir, your obedient servant,

W. L. JACKSON.

THE SECRETARY TO THE ADMIRALTY.

Mr. John Burns (for Cunard Line) to Mr. Forwood.

LONDON, *February 8, 1887.*

SIR: With further reference to your letter of 28th ultimo, and having regard to our conversations in the House of Commons on 31st ultimo and 4th instant, and at the admiralty yesterday, together with my interview last evening with Lord George Hamilton and yourself in the House of Commons, I now beg to lay before you a statement of the amended terms, which, after the most careful consideration of the subject, I am prepared to recommend for the acceptance of my colleagues, the directors of the Cunard Company.

The company would hold at the disposition of the Government, for purchase or hire, during the continuance of the agreement, the following vessels, on the conditions undermentioned, viz:

Name of vessel.	Gross tons.	Value.
Etruria	7,718	£310,000
Umbria	7,718	301,000
Aurania	7,269	240,000
Servia	7,392	193,000
Gallia	4,809	102,000

(1) A subvention of 15 shillings per gross registered ton per annum, to be paid by the Government to the company, on account of the *Etruria*, *Umbria*, and *Aurania*, during the continuance of the postal contract; but, in the event of the determination of that contract before these three vessels have received five years' payment of such annual subvention, the company shall be entitled to receive for the balance of such unexpired period, a subvention at the rate of 20 shillings per gross registered ton per annum, the five vessels being still held at the disposition of the Government in the same manner as if the postal contract was current.

(2) The subvention to be paid half-yearly at 1st of April and 1st of October, the first payment (for one month) being due on 1st of April, 1887.

(3) The subvention to cease in respect to any vessel which may be lost, or may not be maintained in sea-going condition, according to board of trade requirements.

(4) In consideration of the said subvention, the company engage to hold, at the disposition of the admiralty, in Liverpool, all or any of the above-named five vessels for hire or purchase, on the terms hereafter set forth, immediately on the completion of the voyage (but after discharge of cargo) on which the vessel may be engaged at the time of the receipt of notice of the admiralty's intention to purchase or hire. The vessels under agreement may be annually inspected by the admiralty.

(5) The company to be precluded from entertaining, in connection with any of the five vessels named, offers for sale or charter, for a period exceeding five weeks (unless, in the case of a longer charter, with the approval of the admiralty previously obtained), without first giving to the admiralty the option of exercising the pre-emption to purchase or hire, such option to be exercised, as regards the *Etruria*, *Umbria*, and *Aurania*, all or any, within seven days; and as regards the *Servia* and *Gallia*, either or both, within forty-eight hours. In the event of the company giving such notice to the admiralty, it shall be accompanied by such evidence of the bona fide nature of such offer for sale or charter, as shall, in the opinion of the admiralty, be satisfactory, otherwise the said notice shall be considered void and of no effect. In the event of charter by the company for a period in excess of that named, the subvention to be suspended during the currency of such charter, unless continued by previous special arrangement with the admiralty.

(6) In the event of purchase the foregoing prices are to be held as the values of the vessels on 1st of January, 1887, plus 10 per cent. for compulsory sale, less an abatement of 6 per cent. per annum on the depreciated annual value for the period that may elapse between 1st of January, 1887, and the date of purchase by the Government. In such case the company shall be entitled to remove from the ship or ships the plated ware, cutlery, crystal, earthenware, blankets, counterpanes, and linens, which articles are not to be considered as part of the equipment of the ships, but such proportionate quantities as may be necessary for the number of officers and warrant officers that would form part of the ship's complement if used as an armed cruiser to be left on board free of charge.

(7) In the event of charter by the admiralty, the rate of hire for the *Etruria*, *Umbria*, *Aurania*, all or any, to be 20 shillings per gross registered ton per calendar month, without crew; and the rate of hire for the *Servia* and *Gallia*, either or both, to be 15 shillings per gross registered ton per calendar month, without crew, Government assuming in each case, all

risks of loss or damage. The company to be allowed seven days on pay, at the stipulated rate of hire for any of the vessels so chartered, for taking down the cabin fittings not required by the admiralty, and ten days on the same pay at the termination of the service for replacing these fittings, the work of dismantling and re-instating to be performed by the company, but the expense in connection therewith to be borne by the admiralty. Should the Government hire, and subsequently elect to purchase, any steamer under the contract, three-eighths of the amount of hire paid during the period, not exceeding six months, immediately preceding the purchase, to be allowed off the amount of purchase-money provided by these presents.

(8) In order to have the *Umbria*, *Etruria*, and *Aurania* ready for service as armed cruisers at the shortest possible notice, the company shall afford to the admiralty every facility compatible with the present use of the vessels as mercantile ships for the placing on board of such fittings and arrangements for their armament as will enable them to be prepared within a week of the arrival of either ship at Liverpool and discharge of cargo. For this purpose the company consent to the admiralty fitting the permanent supports and platforms for the four guns to be carried on the poop and forecastle. As regards these four guns and the eight guns contemplated to be placed on the upper deck, the admiralty are to provide the racers and other fastenings and gun mountings, which the company are to keep, if required by the admiralty, in their store-house at Liverpool, without charge, ready for immediate placing on board the ships at the cost of the admiralty, and to maintain the same in clean order ready for immediate use, free of charge.

(9) It is understood that the crews of the vessels employed under the agreement shall consist as nearly as possible of at least one-half of men belonging to the royal naval reserve, and the company agree to do every thing in their power to give effect to this requirement at the earliest possible date after the commencement of the arrangement.

(10) Should any of the foregoing ships be sold to a British ship-owner, approved by the admiralty, the privileges of the agreement are to remain attached to the ship or ships under the new ownership.

(11) In the event of the company determining to build new ships for the mail service, they undertake to submit the plans to the admiralty with a view to their being constructed in a manner best suited to the purpose of armed cruisers; and should the plans be approved, and proposals be accepted by the admiralty, such vessels to be taken on similar terms to these herein specified for the *Umbria*, *Etruria*, and *Aurania*.

(12) The contract to commence on 1st of March, 1887, and to continue for a period of five years, terminable then or thereafter by twelve months' notice previously given.

I am, sir, your obedient servant,

JOHN BURNS.

ARTHUR B. FORWOOD, Esq., M. P.,
Admiralty.

It is understood that the *Umbria* is to be fitted forthwith with the permanent supports and platforms, as described in clause 8, in order that she may be completed before she sails from Liverpool for New York on Saturday, 5th of March—and that, in the cases of the *Etruria* and *Aurania*, every effort will be made to furnish those ships in the same manner as expeditiously as possible—to effect which the work will be taken on hand upon the next arrivals of these vessels in Liverpool and continued during their stay in port between each consecutive voyage until completed.

JOHN BURNS.

MEMORANDUM.—Mr. Burns has undertaken to do his best to assist the admiralty to arrange for obtaining the services of the engineers and stokers in case the ships be taken up as cruisers, and stated to Admiral Sir Arthur Hood he would at once see what can be done, but that, as the result must depend on the individuals, the matter could not be included in the terms of agreement between the admiralty and the Cunard Company.

Admiralty to Mr. John Burns.

ADMIRALTY, S. W., *February 8, 1887.*

SIR: My lords commissioners of the admiralty have had under consideration your letter of this date, addressed to Mr. Forwood, making detailed proposals for holding at the disposition of Her Majesty's Government, for purchase or hire, during the continuance of the agreement, certain specified vessels belonging to the Cunard Company, the admiralty paying a subvention at a fixed rate per gross registered ton per annum on account of the *Etruria*, *Umbria*, and *Aurania*.

My lords desire me to state that they accept these proposals, and a further letter will follow.

I am, sir, your obedient servant,

EVAN MACGREGOR.

JOHN BURNS, Esq.,
Grand Hotel.

Mr. John Burns to Admiralty.

LONDON, *February 9, 1887.*

SIR: My letter of yesterday to the secretary of the admiralty, with your acknowledgment of the same date, were submitted to my colleagues, the directors of the Cunard Company, and they desire me respectfully to point out that, of course, under clause 7 of my letter it is understood that the expense of other work or changes involved by admiralty requirements, in addition to the dismantling and re-instating mentioned, is to be borne by the admiralty.

In reference to clause 8 the directors beg me to state that whilst most anxious to meet the wishes of the admiralty as to storage (and they are prepared to do so in so far as regards the lighter articles of armament) the company's lofts are limited in size, and the Mersey Dock Board will not allow any thing to be stored on the quay floors. This matter was carefully discussed by Captain Watson and myself with Mr. White, who suggested a way out of the difficulty, and I trust that effect may be given to his proposal, which would, I conceive, well serve the objects of the admiralty.

In conclusion, I would beg to refer to the memorandum drawn up by Mr. White, which was read to me, and in which I concurred.

I am, sir, your obedient servant,

JOHN BURNS.

EVAN MACGREGOR, Esq., C. B.,
Admiralty.

Admiralty to Mr. John Burns.

ADMIRALTY, *February 10, 1887.*

SIR: I am commanded by my lords commissioners of the admiralty to acknowledge the receipt of your letter of the 9th instant respecting the arrangements made with the Cunard Company for retaining the services of some of their vessels, if such should be required, as armed cruisers.

(2) As regards paragraph 7 in your letter of the 8th instant, my lords have no special remarks to make, and as regards paragraph 8 my lords do not wish to insist on the storage of the articles referred to being close to the water, and consequently the objections of the Mersey Docks and Harbor Board need not be taken into account, but their lordships must look to the Cunard Company to provide suitable storage free of charge.

I am, sir, your obedient servant,

ARTHUR B. FORWOOD.

JOHN BURNS, Esq.,
Care of A. P. Moorhouse, Esq.,
8 Water Street, Liverpool.

ROYAL NAVAL RESERVED MERCHANT CRUISERS,

[Inclosure 2 in Consul-General New's report.]

LIST OF VESSELS HELD BY THE OWNERS AT THE DISPOSITION OF THE LORDS COMMISSIONERS OF THE ADMIRALTY.

1.—*Special vessels receiving an annual subvention.*

Name of steamer and owner.	Name of commander if an officer of the royal naval reserve.	I. H. P.	Tonnage.	
			Gross.	Net.
Cunard Company:			*Tons.*	*Tons.*
Etruria	Wm. H. P. Hains, honorable lieutenant	14,500	7,790	3,391
Umbria	Wm. McMickan, honorable lieutenant	14,500	7,798	3,401
Aurania	Horatio McKay, honorable lieutenant	9,500	7,269	4,030
Peninsular and Oriental Steam Navigation Company:				
Victoria	George N. Hector, honorable lieutenant	7,000	6,268	3,167
Britannia	Julius Orman, honorable lieutenant	7,000	6,257	3,145
Oceana	Percival S. Tomlin, honorable lieutenant	7,000	6,362	3,349
Inman and International:				
City of Paris		18,000	10,499	5,581
City of New York		18,000	10,499	5,581
White Star line:				
Teutonic			9,685	4,244

NOTE.—One vessel (the *Majestic*) is now building by the White Star line, upon which subvention will be paid when complete.

2.—*Additional vessels belonging to the above owners held at the disposition of the admiralty without further subsidy.*

Name of steamer and owner.	Name of commander if an officer of the royal naval reserve.	I. H. P.	Tonnage.	
			Gross.	Net.
Cunard Company:			*Tons.*	*Tons.*
Servia		10,000	7,392	3,971
Gallia	Michael Murphy, honorable lieutenant	5,300	4,809	2,898
White Star line:				
Britannic		5,200	5,004	3,152
Germanic	Peter J. Irving, lieutenant	5,200	5,008	3,150
Adriatic	John G. Cameron, lieutenant	3,600	3,888	2,458
Celtic		3,600	3,867	2,439
Peninsular and Oriental Steam Navigation Company:				
Arcadia	William B. Andrews, honorable lieutenant.	7,000	6,362	3,349
Valetta		5,000	4,919	2,796
Massilia		5,000	4,918	2,758
Rome		5,000	5,010	2,546
Carthage		5,000	5,013	2,588
Ballaarat		4,500	4,764	2,679
Parramatta	Robert G. Murray, honorable lieutenant	4,500	4,771	2,696
Inman and International:				
City of Berlin		6,000	5,526	3,302
City of Chicago		4,500	5,202	3,383

AUSTRIA.

REPORT BY MINISTER GRANT, OF VIENNA.

In reply to Department instructions, under date of July 23, 1889, I have the honor to forward, as my report, the following:

Upon receipt of instructions I proceeded to the imperial and royal foreign office in Vienna, where I saw Count Kalnoky. I conveyed to His Excellency the substance of your instructions, to which he replied that there was but one line of steam-ships sailing under the Austro-Hungarian flag—the Austrian Lloyd—which received subsidies or pay for carrying mail; and that if I would put into writing just what information was desired he would refer the matter to the minister of commerce, who, he said, would no doubt give an immediate answer to all my inquiries. Following the suggestion of Count Kalnoky, I wrote a letter on the 7th of August asking the count to be good enough to inform me "what amount of money is paid monthly and annually by the Government of Austria-Hungary, in the form of bounty, subsidy, or mail pay, to the vessels sailing under the imperial flag; also, what, if any, means of communication exist between the ports of Austria and those of Central and South America and the West Indies, the number of vessels engaged, their tonnage and passenger capacity, the number of voyages, etc., and the amount of compensation paid them for the carriage of the mails."

On the 4th of September I received as reply the inclosed. With this reply was also a note stating that the imperial and royal minister had sent my letter of inquiry to the Hungarian authorities and would forward their answer to me as soon as it was received by them.

I have delayed making my report until the present time, hoping to receive the promised information from Hungary, which has not yet reached me, however. Rather than postpone writing longer, I venture to send you what information I have obtained, which I have put into the form of a statistical table, after much study and research. I also inclose a brief statement, in English, of the contents of the printed papers which I received from the imperial and royal foreign office.

I am informed that Baron Morpurgo, president of the Austrian Lloyd Steam-ship Company, is now visiting Vienna. His object is to induce the Government to increase the amount paid per knot for carrying the mail, for he claims that the present compensation is not sufficient to enable the company to fulfill its obligations. The subsidy has not been increased, but it is probable that it will be. I will, of course, forward any further information I may receive upon this subject.

F. D. GRANT,
Minister.

UNITED STATES LEGATION,
Vienna, September 30, 1889.

[Inclosure 1 in Minister Grant's report.]

Tabulated statement relating to subsidies paid to steam-ship companies by the Government of Austria-Hungary.

No.	Route.	Speed per hour in knots.	Subsidy for each knot.		Number of trips per year.	Fines for each hour of delay.	
	A.		*Florins.*			*Florins.*	
*1	Trieste to Alexandria (Egypt) and back........	Over 11½...	2.60	$1.04	52	25.00	$10.00
2	Fiume to Alexandria (Egypt) and back........	Over 10......	1.65	.66	12	25.00	10.00
	B.						
†3	Trieste to Cattaro and back........................	......do.........	1.65	.66	52	15.00	6.00
4	Fiume to Cattaro and back........................	......do.........	1.65	.66	52	15.00	6.00
5	Trieste to Corfu, Piræus, Constantinople, and back..	......do.........	1.65	.66	52	25.00	10.00
6	Piræus to Smyrna and back........................	......do.........	1.65	.66	52	25.00	10.00
7	Trieste and Spalato, Metcovich, and back...	Under 10.....	1.05	.42	52	15.00	6.00
8	Trieste to Pola, Durazzo, Corfu, and back....	......do.........	1.05	.42	52	15.00	6.00
9	Trieste to Dalmatia, Corfu, Prevesa, and back.	......do.........	1.05	.42	52	15.00	6.00
10	Fiume to Trieste and back........................	......do.........	1.05	.42	52	15.00	6.00
11	Fiume to Cattaro and back........................	......do.........	1.05	.42	52	15.00	6.00
12	Spaluto to Metcovich and back....................	......do.........	1.05	.42	52	15.00	6.00
13	Trieste to Fiume, Corfu, Patras, Piræus, Syra, Salonica, Constantinople, and back...	......do.........	1.05	.42	52	15.00	6.00
14	Trieste to Corfu, Candia, Smyrna, and back...	......do.........	1.05	.42	26	15.00	6.00
15	Constantinople to Smyrna, Cypern, Beirut, Alexandria, and back........................	......do.........	1.05	.42	52	25.00	10.00
6	Constantinople to Kustendje, Braila, and back..	......do.........	1.05	.42	26	15.00	6.00
17	Constantinople to Trapezunt, Batum, and back..	......do.........	1.05	.42	40	15.00	6.00
18	Trieste to Bombay and back, calling at Port Said, Suez, and Aden........................	Over 11......	2.00	.80	4	....	....
	C.						
19	Trieste to Bombay, Hong-Kong, and back...	......do.........	2.00	.80	12	....	....
20	Colombo to Madras, Calcutta, and back, connecting at Colombo with Trieste line...	Over 9........	1.35	.54	12	....	....
	D.						
1	Trieste to Santos, Brazil, touching at one Spanish port or Lisbon	......do.........	1.50	.60	6	....	....

No.	Route.	Tonnage not less than—	Number of knots made each trip.	Subsidy for each trip.	
	A.			*Florins.*	
*1	Trieste to Alexandria (Egypt) and back	1,700	2,402	6,245.20	$2,498.08
2	Fiume to Alexandria (Egypt) and back.............................	1,700	2,330	3,844.50	1,537.80
	B.				
†3	Trieste to Cattaro and back..	700	756	1,247.40	498.96
4	Fiume to Cattaro and back	700	584	963.60	375.44
5	Trieste to Corfu, Piræus, Constantinople, and back..............	1,700	2,386	3,936.90	1,574.76
6	Piræus to Smyrna and back...	1,000	418	689.70	275.88

*Speed increased to 13 knots per hour and must carry a surgeon.

†Must carry a surgeon.

‡On this line the subsidy is 2 florins, or 80 cents, per knot from Trieste to Bombay and 1.35 florins, or 54 cents, from Bombay to Hong-Kong. Distance from Bombay to Hong-Kong and back, 7,910 miles.

§The ministry of foreign affairs can at discretion have two of the trips extended to Buenos Ayres and to Montevideo, without additional subsidy.

Tabulated statement relating to subsidies paid to steam-ship companies, etc.—Continued.

No.	Route.	Tonnage not less than—	Number of knots made each trip.	Subsidy for each trip.	
	B—Continued.			*Florins.*	
7	Trieste to Spalato, Metcovich, and back	350	543	570.15	$228.06
8	Trieste to Pola, Durazzo, Corfu, and back	700	1,262	1,325.10	530.04
9	Trieste to Dalmatia, Corfu, Prevesa, and back	700	1,464	1,537.20	614.88
10	Fiume to Trieste and back	350	254	266.70	106.68
11	Fiume to Cattaro and back	700	772	810.60	324.24
12	Spalato to Metcovich and back	350	156	163.80	65.52
13	Trieste to Fiume, Corfu, Patras, Piræus, Syra, Salonica, Constantinople, and back	1,700	3,690	3,874.50	1,549.80
14	Trieste to Corfu, Candia, Smyrna, and back	1,000	2,605	2,735.25	1,094.50
15	Constantinople to Smyrna, Cypern, Beirut, Alexandria, and back	1,700	2,674	2,807.70	1,123.08
16	Constantinople to Kustendje, Braila, and back	1,000	758	795.90	317.36
17	Constantinople to Trapezunt, Batum, and back	1,000	1,246	1,309.30	523.72
18	Trieste to Bombay and back, calling at Port Said, Suez, and Aden	2,300	8,680	17,360.00	6,944.00
	C.				
*19	Trieste to Bombay, Hong-Kong, and back	2,300	16,590	28,038.50	11,215.40
20	Colombo to Madras, Calcutta, and back, connecting at Colombo with Trieste line	1,000	2,740	3,699.00	1,479.60
	D.				
†21	Trieste to Santos, Brazil, touching at one Spanish port or Lisbon	1,800	13,300	19,950.00	7,980.00

No.	Route.	Number of knots traveled per year.	Subsidy paid per year.	
	A.		*Florins.*	
‡1	Trieste to Alexandria (Egypt) and back	124,904	324,750.40	$129,900.16
2	Fiume to Alexandria (Egypt) and back	27,960	46,134.00	18,453.60
	B.			
§3	Trieste to Cattaro and back	39,312	64,864.80	25,945.92
4	Fiume to Cattaro and back	30,368	50,107.20	20,042.88
5	Trieste to Corfu, Piræus, Constantinople, and back	124,072	204,718.80	81,887.52
6	Piræus to Smyrna and back	21,736	35,864.40	14,345.76
7	Trieste to Spalato, Metcovich, and back	28,236	29,647.80	11,859.12
8	Trieste to Pola, Durazzo, Corfu, and back	65,624	68,905.20	27,562.08
9	Trieste to Dalmatia, Corfu, Prevesa, and back	76,128	79,934.40	31,973.76
10	Fiume to Trieste and back	13,208	13,868.40	5,547.36
11	Fiume to Cattaro and back	40,144	42,151.20	16,860.48
12	Spalato to Metcovich and back	8,112	8,517.60	3,407.04
13	Trieste to Fiume, Corfu, Patras, Piræus, Syra, Salonica, Constantinople, and back	95,940	100,737.00	40,294.86
14	Trieste to Corfu, Candia, Smyrna, and back	135,460	142,233.00	56,893.20
15	Constantinople to Smyrna, Cypern, Beirut, Alexandria, and back	69,524	73,000.20	29,200.08
16	Constantinople to Kustendje, Braila, and back	30,320	31,836.00	12,734.40
17	Constantinople to Trapezunt, Batum, and back	14,952	15,699.60	6,279.84

*On this line the subsidy is 2 florins, or 80 cents, per knot from Trieste to Bombay and 1.35 florins, or 54 cents, from Bombay to Hong-Kong. Distance from Bombay to Hong-Kong and back, 7,910 miles.

†The ministry of foreign affairs can at discretion have two of the trips extended to Buenos Ayres and to Montevideo, without additional subsidy.

‡Speed increased to 13 knots per hour and must carry a surgeon.

§Must carry a surgeon.

Tabulated statement relating to subsidies paid to steam-ship companies, etc.—Continued.

No.	Route.	Number of knots traveled per year.	Subsidy paid per year.	
	B—Continued.		*Florins.*	
18	Trieste to Bombay and back, calling at Port Said, Suez, and Aden	34,720	69,440.00	$27,776.00
	C.			
*19	Trieste to Bombay, Hong-Kong, and back	199,080	336,462.00	134,584.80
20	Colombo to Madras, Calcutta, and back, connecting at Colombo with Trieste line	32,880	44,388.00	17,755.20
	D.			
†21	Trieste to Santos, Brazil, touching at one Spanish port or Lisbon	79,800	119,700.00	47,880.00
	Total	1,292,480	1,902,960.00	761,184 00

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*On this line the subsidy is 2 florins, or 80 cents, per knot from Trieste to Bombay and 1.35 florins, or 54 cents, from Bombay to Hong-Kong. Distance from Bombay to Hong-Kong and back, 7,910 miles.

†The ministry of foreign affairs can at discretion have two of the trips extended to Buenos Ayres and to Montevideo, without additional subsidy.

NOTE.—Routes Nos. 2 to 17 (inclusive) may be changed to include other ports at the discretion of the ministry of foreign affairs, provided the distance be not increased more than 3,000 knots on routes Nos. 2 to 6 (inclusive), and 5,000 knots on routes Nos. 7 to 17 (inclusive). Under this arrangement the Austrian Lloyd Steam-ship Company is not required to make a mileage of over 1,300,000 knots in any one year. The fine for missing a port is 120 florins, or $48. In the purchase of material preference must be given to Austro-Hungarian industries. Fuel must be purchased from Austro-Hungarian subjects in the proportion of 2 tons from Austria to 1 ton from Hungary, provided that the price is not greater than foreign coal, and that the steam-producing power of the native coal is equal to at least 84 per cent. of that of the foreign fuel. Austrian State officials are to be carried free, and the ships are to be placed at the disposal of the Government in case of war. All employés must be Austro-Hungarian subjects. The company is subject to the regulations of the imperial royal post-office. The company can pay dividends up to 4 per cent. All surplus over 6 per cent. is to be divided, the Government receiving 33⅓ per cent. and the company 66⅔ per cent.

CONTRACT ENTERED INTO BETWEEN THE IMPERIAL ROYAL MINISTRY OF FOREIGN AFFAIRS AND THE AUSTRO-HUNGARIAN LLOYD STEAM-SHIP COMPANY, ON MARCH 19, 1888.

[Inclosure 2 in Minister Grant's Report—Translation.]

ARTICLE 1. The Austro-Hungarian Lloyd binds itself to keep up the communication as set forth in the supplement, at the remuneration given in the following articles. Any modifications and changes will be settled by special conventions.

The foreign office has the right to demand that certain ports not mentioned in the present contract be touched by the steamers, provided that such is practicable. Such prolongation of the voyage is allowed only in group B and C, and the number of miles must not exceed 3,000 in B and 5,000 in C.

ART. 2. The subsidy amounts to—

(*a*) Trips with speed of 11½ miles per hour, 2.60 florins per mile.

(*b*) Trips with speed of 10 miles per hour, 1.65 florins per mile.

(*c*) Trips with less speed than the last mentioned, 1.05 florins per mile. The total amount of mileage in one year will not exceed 1,300,000 florins.

ART. 3. The foreign office has the right to give these subsidies to new lines or cease paying them, on the completion of the Oriental railway lines, if such measure should appear to be advisable.

ART. 4. The company will employ only vessels which offer every guaranty of safety, speed, and comfort.

The tonnage will not be less than: On the lines 7, 10, and 12, 350 tons; on the lines 3, 4, 8, 9, and 11, 700 tons; on the lines 6, 14, 16, and 17, 1,000 tons; on the lines 1, 2, 5, 13, and 15, 1,700 tons.

The Government may at any time, if it thinks proper, inspect the vessels to see whether they are sea-worthy. New vessels, whether purchased or built, must be inspected before allowed to proceed on a journey.

ART. 5. The company holds itself responsible for performing the voyages as indicated in the supplement. Loss of time must be made good by greater speed. On being three hours behind time at arrival or departure, at the more important ports, the company will be fined; wind and weather will make exceptions. The fine for the voyages 1, 2, 5, 6, 15 for every hour, 25 florins; for the other voyages for every hour, 15 florins; for not calling at a port, 120 florins; to be deducted from the mileage. On return of the vessel to the port of original departure the ship's register will be examined by the proper authorities. Any changes in the time-tables must first be submitted to the Government for approval.

ART. 6. The passenger and freight tariffs shall not be higher than those of other lines competing in the trade. The foreign office has the right to revise tariffs if necessary. All laws and regulations in force at Trieste apply equally to Fiume. Both places are to be treated exactly alike.

ART. 7. The company will obtain its fuel from inland dealers—20,000 tons of coal from Austrian and 10,000 tons from Hungarian sources.

ART. 8. The harbor police will go on board the ships by day or by night for the purpose of performing their duties, and the company must furnish them to this end with the necessary transportation.

ART. 9. Quarantine officers may go on board at the port of departure, to perform their duties during the voyage, thereby saving time.

ART. 10. For loading and discharging of cargo a space will be reserved in every Austrian or Hungarian port. The vessels of the Austro-Hungarian Lloyd, during the term of this contract, will be exempt from paying consular fees. Other harbor dues must be paid by them.

ART. 11. State officials and their servants have free tickets to travel. In time of war the company will place its vessels at the disposal of the Government to transport troops and material of war, for proper remuneration. The damage to such ships employed by the war department, when inflicted by the enemy, or by explosion, will be paid by the war department. In case of need the foreign office will allow the discontinuance of certain trips, to enable the company to fill its obligations with the war department, and the latter will advise the company beforehand of the approximate number of vessels required. Military transports are regulated by the existing rules in force on that subject. In case such rules are found to be inapplicable, and others are substituted, the company is nevertheless bound to issue a passage ticket to every military person at half-price.

ART. 12. The company must furnish a free passage and board to all persons when provided with a certificate from a consular officer or an embassy. But they can not be held to take on board more than twelve such persons at one time. For every person thus transported the authorities at Trieste or Fiume will pay third-class fare and 50 kreuzers per day. If the persons are liable to military duty, a free ticket is to be given to them. When carrying such persons, due caution will be observed to avoid annoyance to other passengers as well as due vigilance.

ART. 13. As the company carries the mail, it will be regarded as a branch of the post-office department, and as such to be held to obey its instructions. The latter, therefore, has the right to use the steamers to carry letters and parcels irrespective of their place of origin and destination. The steamers will therefore be called "mail-packets."

ART. 14. The carrying of letters, freights, and insured parcels is subject to the respective tariff.

ART. 15. The company gives the required security for the letters and parcels intrusted to its care. Against the power of the elements, however, only in case the goods are insured.

ART. 16. The company will not carry the mail on its own account either in Austria or abroad, nor will its employés do so. Letter boxes must be placed on board the ships to receive the mail matter. Every ship must have a space devoted exclusively to the sorting of letters and the storage of the mail.

ART. 17. The company and its agents, when carrying on official correspondence, are exempt from paying postage.

ART. 18. When officers are employed by the post-office department to accompany the mails, a first-class berth must be given to such officer, together with a separate apartment for storage; price of board for official, 1.50 florins per day.

ART. 19. If the steamers, while under way, meet with an accident, the captain, after consultation with the post-office employé, if such is on board, must take care to see that the mails meet with prompt transmission. Expenses must be borne by the company.

ART. 20. Other manipulations connected with the postal service will be regulated by special agreement between the two post-office departments and the company.

ART. 21. All members of the board of administration, as well as all the officers and employés of the company who draw a fixed salary in Austria or abroad, must be Austro-Hungarian citizens, and an exception can be made only with the consent of the minister. The company, when making appointments, will give the preference to officers and cadets of the navy on the active or reserved list.

ART. 22. Both ministries of commerce appoint each one member of the board of administration.

ART. 23. The company agrees that during the term of this contract all questions touching the making of loans, mortgages, increase or decrease of stock or shares, alterations or sale of materials, etc., be submitted for approval to the foreign office. In the building and repairing of ships, parts of ships, and engines the company will favor home material. When ordering ships, engines, or boilers abroad, the consent of the foreign office must first be obtained, which will not be refused when it is shown that the work can not be made in Austria within proper time, or that the want can be supplied by a foreign country at more favorable terms.

ART. 24. Monthly statements will be made of the business transactions on the 15th of each month for the month preceding the last (on March 15 for January), and published in the official newspapers of Vienna, Budapesth, Trieste, and Fiume.

ART. 25. No change in the statutes can be made while the contract is in force without approval of the foreign office.

ART. 26. The foreign office exercises the control and examines the books of the company. A Government official will be present at each sitting of the board of administration. For the payment of this officer the company must contribute the annual sum of 4,000 florins.

ART. 27. At Fiume the company must have an acting director. At Vienna and Budapesth general agents will be located for the convenience of shippers.

ART. 28. Passengers will be treated with due consideration. Books will be found on board the ships and at the offices on shore to enter any complaints.

ART. 29. The subsidy to which the company is entitled can be drawn in monthly installments. As the final sum, however, can not be ascertained before the end of the year, when the number of miles traversed has become known, advance payments will be made by the treasury of the Empire to the amount of 105,000 florins at the beginning of each month. At the end of the year full statements must be submitted by the company to the foreign office, authenticated by consular certificates regarding the correctness of the number of voyages made and the number of miles traversed. In case of long interruption of stipulated voyages, deduction will be made from the subsidy, or it will cease to be paid entirely. If such interruption, however, was not the fault of the company, the amount due shall not be less than 1,000,000 florins.

ART. 30. Without sanction of the foreign office the company can not pay a higher dividend than 4 per cent. In case the net proceeds of one year should exceed 6 per cent. of the capital invested, the surplus thus realized will be divided between the foreign office and the company in such a manner that the former receives one-third and the company two-thirds.

ART. 31. The duration of the present contract will be ten years commencing July 1, 1888.

The following additional agreements have this day been added to the contract with the Austrian Lloyd Steam-ship Company:

To article 1.—On the line Alexandria to Trieste steamers will be placed which will keep up a speed of 13 miles an hour. The steamers of the line Trieste to Constantinople will pass through the Canal of Corinth as soon as it has been opened.

The steamers of the line Trieste, Fiume, Smyrna, No. 14, and Fiume, Corfu, and back, will keep up a speed of 10 miles an hour without change of subsidy fixed for that line, and will connect at Corfu with the line Trieste to Constantinople. On demand of the foreign office, the company will keep up the line Varna to Constantinople and back, as heretofore, from the date of this contract for six more months without remuneration.

To article 4.—When effecting insurances, the company will take proper regard for Hungarian insurance companies.

To article 5.—Detailed time-tables will be submitted to the foreign office for approval at least one month before taking effect. Changes must be made known two weeks before taking effect in Vienna, Budapesth, Trieste, and Fiume. Trips not stipulated must also be published beforehand. Single trips must be made known in the respective places as early as practicable. When quarantine regulations render the calling at a port not advisable and a permit from the foreign office to pass the port without touching can not be obtained in time, the permit must be given by the Government official. If the steamer arrives after it should have left according to the time-table, the stay in port must be limited to the time necessary for embarking and disembarking, and the taking on board and discharging the mails.

To article 6.—Every contemplated change in the tariff must be submitted to the foreign office for approval at least eight weeks before taking effect, and such changes will be published in Vienna, Budapesth, Trieste, and Fiume two weeks before going into operation. Any deviation from the tariff, reductions granted, and other favors shown to skippers and passengers must be reported quarterly to the foreign office. No distinction is to be made in the tariff if cargo is partly shipped to Trieste and partly to Fiume. A reduction of fare will be made on return tickets.

To article 7.—The company must use the stipulated quantity of domestic coal on condition that the heating power of the inland product in proportion to the English coal used by the Lloyd steamers is at least 84 to 100, and that the price of the domestic article at Trieste and Fiume is not higher than the English product in both of these two places. When coal is imported by the company from other foreign countries, its transportation to Austria and Hungary must be made by domestic vessels.

To article 9.—The vessels of the line Trieste to Alexandria and Trieste to Constantinople must carry a surgeon. The foreign office, if it sees fit, may extend this obligation to other lines. Vessels in quarantine at the East, having on board over fifty passengers, must be provided with a surgeon.

To article 11.—(Certain regulations concerning official visits of customs and revenue officers along the coast.)

Missionaries are to be included in the list of persons enjoying the privilege of reduced fares.

To articles 16 to 26.—(About repairs to engines, office stationery, manner of keeping the books, etc.)

STIPULATIONS CONCERNING INTEROCEANIC COMMUNICATIONS.

Article 1. The company will carry on the transit during the present term of contract at the rates as given in article 3.

(1) Three voyages annually from Trieste to Bombay and back.

(2) Twelve voyages annually from Trieste, via Bombay, to Hong-Kong and back.

(3) Twelve voyages annually from Colombo to Calcutta and back, connecting with the steamers under No. 2.

(4) Six voyages annually from Trieste to Santos, Brazil, and back. Two voyages extended to Buenos Ayres and Montevideo.

On the trip No. 1 Port Said, Suez, and Aden must be touched; on trip No. 2, Port Said, Suez, Aden, Colombo, Penang, and Singapore; on trip No. 3, Madras and on No. 4, one Spanish or Portuguese port.

Art. 2. Tonnage to be as follows: Nos. 1 and 2, 2,300 tons; No. 3, 1,000 tons; No. 4, 1,800 tons. Speed to be as follows: Nos. 1 and 2, at least 11 miles an hour; Nos. 3 and 4, at least 9 miles an hour. On the line No. 4 steamers built for carrying freight may be placed.

Art. 3. The subsidy to be paid by the State is as follows: Trieste to Bombay, 2 florins per mile; Trieste to Hong-Kong, 2 florins per mile; Bombay to Hong-Kong and back, 1.35 florins per mile; Colombo to Calcutta and back, 1.35 florins per mile; Trieste to Brazil and back, 1.50 florins per mile. Number of miles: Trieste to Bombay, 8,680; Bombay to Hong-Kong, 7,910; Colombo to Calcutta, 2,740; Trieste to Brazil, 13,300.

Art. 4. An advance payment of 45,000 florins will be made at the beginning of each month on account of subsidy to the company.

Art. 5. The company will offer every facility to passengers and freight destined to ports at which the steamers of their line do not call.

Art. 6. The expenses for subsistence mentioned in article 12, when applied to persons to be sent home through the Suez Canal and the Straits of Gibraltar, will be 1 florin in gold per day.

Two identical copies of this contract have been made, with the required signatures and seals. The tax for the revenue stamps to be affixed to the two copies of the contract will be deducted from the first installment of the subsidy.

HUNGARY.

REPORT BY MINISTER GRANT, OF VIENNA.

Since writing my dispatch under date of the 30th ultimo I have received from the ministry of foreign affairs a note which inclosed four statements concerning the subsidies paid by the Hungarian portion of this Empire to steam-ship companies for carrying the mail. Besides the subsidized companies mentioned in these four statements the Hungarian Government has entered into a contract with the Anchor line, of Glasgow, to carry the mail from Fiume to North America, making eighteen trips a year. The company (Anchor line) receives no money, but is granted certain favors for this service.

F. D. GRANT,
Minister.

United States Legation,
Vienna, October 17, 1889.

Statement of subsidies granted to steam-ship companies by the Hungarian Government.

A.

Name of company.	Line for which the subsidy is granted.	Compulsory number of trips.	Distance to be traveled in geographical miles.
			Marine leagues
Societé de Navigation à Vafem, M. Sverlfuga et Cie., à Fiume.	First line, Fiume to Metkovitch and return.	Weekly...........	420
	Second line, Fiume to Ragusa and and return.	Semi-monthly...	480
	Third line, Fiume to Pola and return.	Tri-weekly	204
	Fiume to Veglia and return..........	......do.............	35¾

Name of company.	Number and capacity of vessels employed in the service.	Speed to be maintained during the trip.	Subsidy.
Societé de Navigation à Vafem, M. Sverlfuga et Cie., à Fiume.	For the first two lines, 2; actually employed on the three lines, 4; on the third line, 2; net total tonnage, 427.	Not fixed...	For the first two lines, 72,000 florins for five years; for the third line, 22,500 florins for five years.

NOTE.—Special conditions under which the subsidies were granted: (1) That the itinerary be submitted for the approval of the Government; (2) that both passenger and freight rates be submitted for the approval of the Government; (3) that the company must transport soldiers and military effects at a reduced price; (4) that the company must carry all mails free; (5) that the company must submit to the Government monthly a statement of the quantity and quality of the merchandise, as well as the number of persons carried by their vessels.

B.

Name of company.	Line for which the subsidy is granted.	Compulsory number of trips.	Distance to be traveled in geographical miles.
			Marine leagues.
Societé de Navigation à Vafem, L. Schwarez et Cie., called "Y'umpesa Fiume-Venezia," à Zágráb (Agram).	Fiume to Venice and return..........	Weekly	274

Name of company.	Number and capacity of vessels employed in the service.	Speed to be maintained during the trip.	Subsidy.
Societé de Navigation à Vafem, L. Schwarez et Cie., called "Y'umpresa Fiume-Venezia," à Zágráb (Agram).	Not definitely fixed in the contract between the Government and the company; number of vessels actually employed in the meanwhile, 2; net total tonnage, 158.	Not fixed....	8,000 florins per annum.

NOTE.—Special conditions under which the subsidies were granted: (1) That the itinerary be submitted for the approval of the Government; (2) that the Government will fix the maximum rates for the transportation of merchandise; (3) that the company must submit to the Government, monthly, a statement of the quantity and quality of the merchandise, as well as the number of persons carried by their vessels.

Statement of subsidies granted to steam-ship companies, etc.—Continued.

C.

Name of company.	Lines for which the subsidy is granted.	Compulsory number of trips.	Distance to be traveled in geographical miles.
			Marine leagues.
Societé de Navigation à Vafem "Krafacz et Cie." à Zeng (Segna).	First line, Zeng to Fiume and return.	Summer, six times per week; winter, tri-weekly.	56
	Second line, Zeng to Pago and return.	Weekly............	74
	Third line, Zeng to Zara and return.	Weekly............	130

Name of company.	Number and capacity of vessels employed in the service.	Speed to be maintained during the trip.	Subsidy.
Societé de Navigation à Vafem "Krafacz et Cie." à Zeng (Segna).	Not fixed in the contract between the Government and the company; number of vessels actually employed in the meanwhile, 4; net total tonnage, 263.	Not fixed..	9,000 florins per annum.

NOTE.—Special conditions the same as those attached to statement A.

D.

Name of company.	Lines for which the subsidy is granted.	Compulsory number of trips.	Distance to be traveled in geographical miles.
	Regular lines.		*Marine leagues.*
"Adria" Societé Anonyme Hongrois de Navigation à Vafem.	First, Fiume to Liverpool and return.	Semi-monthly...	5,980
	Second, Fiume to Glasgow and return.	Monthly..........	6,140
	Third, Fiume to London and return.	Semi-monthly...	6,160
	Or Fiume to Hull and return.........	......do...............	6,380
	Or Fiume to Leith and return........	......do...............	6,740
	Fourth, Fiume to Bordeaux and return.	Monthly..........	5,420
	Fifth, Fiume to Rouen,.................	......do..............	6,000
	Or Fiume to Havre........................	......do..............	5,880
	Or Fiume to Dunkirk....................	......do..............	6,080
	Extra lines.		
	First, Fiume to Glasgow..............	......do..............	3,070
	Second, Fiume to Amsterdam.......	......do..............	3,210
	Or Fiume to Antwerp	......do..............	3,160
	Third, Fiume to Spain..................	......do..............	....
	Fourth, Fiume to Malta-Tunis	......do..............	740
	Fifth, Fiume to Brazil and return...	Bi-monthly	....

Statement of subsidies granted to steam-ship companies, etc.—Continued.

D—Continued.

Name of company.	Number and capacity of vessels employed in the service.	Speed to be maintained during the trip.	Subsidies.	
			Direct.	Indirect.
"Adria" Societé Anonyme Hongrois de Navigation à Vafem.	Capacity November 12, about 7 vessels of 800 tons register, and 5 of 1,200 tons.	Not fixed....	For regular lines, 250,000 florins per annum; for extra lines between Fiume and Spain, and Malta and Tunis, 1,200 florins per trip; for the extra lines between Fiume and Brazil and return, 3,000 florins in gold per trip. On this latter line the following vessels will be preferably used, *Srecknje*, *Zicky*, and *Matlekovrts*, each of 2,500 tons. In case of necessity other ships of about 1,600 tons are put in service. The Brazilian line will carry neither mails nor passengers.	The Government is bound by its contract with the Ardia Line not to subsidize any other companies on the same routes.

NOTE.—Special conditions under which the above subsidies were granted: (1) That the extra lines are not compulsory unless the company is guarantied at least half the cargo; (2) that the rates of freight in the company's vessels must not exceed the usual rates to ports north of the Adriatic; (3) the date of sailing being fixed each month in advance, every delay without cause beyond ten days will involve a fine of 500 florins; (4) the Government will maintain surveillance over the company through an inspector.

BELGIUM.

REPORT FROM THE BRITISH LEGATION AT BRUSSELS.—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Lord Vivian to the Marquis of Salisbury.

BRUSSELS, *January 22, 1889.*

MY LORD: With reference to your lordship's circular dispatch of the 20th ultimo, asking for a return of the bounties or subsidies given in Belgium towards the construction or running of ships, I have the honor to inclose copy of a note from Prince de Chimay, stating that although the Belgium Government does not grant subsidies, premiums, or assistance towards the construction or navigation of merchant vessels, yet that certain materials, such as copper-plates, bolts and nails, wood for masts and spars, ropes, sail-cloth, iron and cast-iron winches, destined for the construction and equipment of vessels, are admitted into Belgium duty free, while the import duty on wood used in naval construction is remitted.

The accompanying laws and customs regulations specify the articles which are admitted free when employed for the purpose specified and indicate the bases on which the import duty on wood used for ship-building is remitted.

In case the return moved for by the House of Commons should be intended to comprise subsidies to postal packet lines, I have the honor to report that in May, 1886, a convention was concluded between the Belgian Government and the North German Lloyd Company, providing for the establishment of a regular packet service between Antwerp, eastern Asia, and Australia in return for the payment of an annual subsidy of 80,000 francs (£3,200) and the remission to the company's vessels of all pilotage and light dues on the Scheldt.

In the following year a convention was concluded between the Belgian Government and certain American navigation companies, providing for the establishment and working of a weekly direct steam-packet service between Antwerp and New York in return for a guarantied minimum postal subsidy of 380,000 francs (£15,200) for the carriage of mails to America.

In the estimates for 1889 the Government ask for a sum of 603,000 francs (£24,120) under the heading of indemnities to be paid to transatlantic navigation companies "in accordance with conventions or by private arrangement," whether in the shape of subventions or guarantied minimum postal subsidies, premiums for punctual service, or repayment of foreign pilotage dues.

Lastly, the mail packet steamers running between Dover and Ostend and Antwerp and La Tete de Flandre, on the opposite side of the Scheldt, are supported by the State. In the estimates for 1889 the Government ask for a sum of 506,422 francs (about £20,250) for these two special services.

Over and above this ordinary postal expenditure a considerable sum has been spent during the last two years, under the heading of extraordinary expenditure, in the purchase of fast mail packets for the postal service, which the Government consider indispensable to enable the Belgian postal administration to cope with rival lines.

By the law of August 14, 1887, Parliament authorized the appropriation of a sum of 1,300,000 francs for this purpose.

I have, etc.,

(Signed,) VIVIAN.

CUSTOMS.

[Translation.]

IMPORTATION, FREE OF DUTY ON ENTRY, OF MATERIALS DESTINED FOR THE CONSTRUCTION AND ARMAMENT OF VESSELS.

Léopold, King of the Belgians, to all to whom these presents shall come, greeting.

The Chambers have adopted and we have sanctioned the following:

ARTICLE 1. The materials hereinafter mentioned, destined for the construction and outfit of vessels, may be imported duty free:

(1) Plates, rivets, and copper nails for sheathing.
(2) Timber for masts, yards, and spars.
(3) Ropes.
(4) Sail-cloth.
(5) Capstans and winches in cast-iron and iron.

Art. 2. Exemption from duty shall be conditional on proof, to be furnished by the importer, that the materials have been actually worked up, or have been shipped after having been entered on the manifest.

We promulgate the present law, and command that the seal of State shall be affixed to it, and that it be published in the Moniteur.

(Signed,) LÉOPOLD,

By His Majesty's Command:
The Minister of Finance,
(Signed,) Frère-Orban.
Laeken, *July 12, 1862.*

EXEMPTION FROM ENTRANCE DUTIES ON MATERIALS FOR SHIP-BUILDING.

By the terms of the law of July 12, R. 889, the materials hereinafter designated, intended for the construction or outfit of ships, may be imported free of duty: (1) Plates, rivets, and copper nails for sheathing; (2) timber for masts, yards, and spars; (3) ropes; (4) sail-cloth; and (5) winches made of cast-iron and iron. The exemption is conditional on proof being furnished by the importer that the materials have been actually worked up, or have been shipped after having been entered on the manifest. I decree the following orders on this subject:

Section 1. The articles mentioned under 1, 2, 4, and 5 being of a nature little suited to other purposes, shall be admitted duty free as material for ship-building, without further proof, providing the following conditions are fulfilled:

Plates, rivets, and copper nails for sheathing must exhibit characteristics which are peculiar to them, and which indicate the purpose for which they are to be used. Rivets are generally imported in bars or rods in order to be cut in the dock-yard as required; these bars and rods shall be admitted under the same conditions as rivets.

Timber for masts, yards, etc., is round timber; it must be at least 25 centimeters in average diameter, and 12 meters long.

Only cloth with more than eight threads to the 5 millimeters—without distinction of material, but having the substance required for sail-cloth, as well as the size, which is from 73 to 76 centimeters (2½ English feet) for Dutch cloth, and from 58 to 61 (2 English feet) for other kinds—shall be admitted as sail-cloth. Sail-cloth manufactured in accordance with the provision of article 40 of the law of the 4th of March, 1846, and declared on leaving the warehouse, may enjoy exemption from duty on entry like cloth of foreign manufacture.

Winches must be of the usual shape used in ships; the chains attached to them can only be admitted duty free so long as they fulfill the conditions prescribed by the law of the 19th of June, 1856 (R. 569).

Sec. 2. If there be doubt or suspicion of fraud with regard to the actual application of articles admissible in conformity with the preceding paragraph, the local head of the custom-house may demand provisional security for the payment of import duty, and require the importer, within a specified time, to prove the employment of the articles as materials for the building or equipment of ships, under pain of being denied the benefit of exemption.

Sec. 3. Bonded warrant No. 132 is delivered for ropes—and in this category are comprised ropes of wire, as well as those of vegetable fiber—whether the removal take place from a bonded warehouse or a custom-house. This paper indicates the place where the ropes will be taken to, and fixes a date for their working up or embarkation. This period shall not be more than six months.

Sec. 4. When the working up or embarkation has taken place, the party interested advises the local custom-house comptroller, or, in his absence, the competent comptroller of taxes, to that effect, sending him a declaration of the nature and quantity of cordage worked up or embarked. The comptroller names on the declaration two functionaries charged with the duty of seeing that the working up or embarkation has been effected. These officials report the result of their verification on the declaration, and return it to the comptroller with the bonded warrant taken out by the importer. The comptroller, after having legalized the signature of the officials, forwards the declaration and the bonded warrant to the receiver of the office whence it emanated. The receiver cancels the bonded warrant, and attaches the declaration to its counterfoil. If the bonded warrant is only partially cleared, the receiver sends it back to the party interested, if needs be, calling his attention to the quantity discharged. At the end of the period of six months fixed in section 3, duty is levied on the quantity the working up or embarkation of which shall not have been established, unless the party interested has obtained an extension from the provincial director.

SEC. 5. Permits for free entry and bonded warrants for the importation of materials for construction or outfit of ships duty free can only be given in the name of a ship-builder, ship-owner, captain, or master.

The Minister of Finance,
FRÈRE-ORBAN.

BRUSSELS, *July 29, 1862.*

NATURALIZATION OF FOREIGN VESSELS—RETURN OF IMPORT DUTIES ON TIMBER EMPLOYED IN SHIP-BUILDING.

Léopold, King of the Belgians, to all to whom these presents shall come, greeting.

The Chambers have adopted and we have sanctioned the following:

ARTICLE 1. Ships and boats are allowed free entry.

ART. 2. The import duty on wood, proved to have been used for building ships or boats, shall be repaid. The Government will fix the basis and method of repayment.

ART. 3. The purchase of vessels under any lien shall be registered at a fixed sum of 2.20 francs.

ART. 4. The reduced duty accorded by articles 1 and 3 are applicable to the importation and purchase of naturalized vessels from the 1st of March, 1864.

We promulgate the present law, and command that the seal of State shall be affixed to it and that it be published in the Moniteur.

(Signed,) LÉOPOLD.

By His Majesty's Command:
The Minister of Finance,
(Signed,) FRÈRE-ORBAN.
WINDSOR, *April 12, 1864.*

TIMBER EMPLOYED IN SHIP-BUILDING—RETURN OF IMPORT DUTY.

Léopold, King of the Belgians, to all to whom these presents shall come, greeting.

Whereas article 2 of the law of the 12th of April, 1864, provides that:

"The import duty on wood, proved to have been used for building ships or boats, shall be repaid. The Government will fix the basis and method of repayment."

At the suggestion of our minister of finance, we have decreed and do decree:

ARTICLE 1. The tonnage of ships and boats shall be taken as the basis for the repayment of the duty on the wood employed in their construction, and the sum returnable shall be reckoned in proportion to the following quantities by ton measurement of 1½ cubic meters:

	Met. déc.
(1) For ships and boats built entirely of oak, with the exception of their fittings:	
Oak of any sort	1.125
Other wood—	
Sawn above 5 centimeters in thickness	0.150
Sawn of 5 centimeters thick or less	0.075

	Met. déc.
(2) For ships and boats whose ribs are of oak, and the remainder of other woods:	
Oak of any sort	0.150
Other woods—	
In the trunk or unsawn	1.000
Sawn—	
Above 5 centimeters in thickness	0.125
5 centimeters thick or less	0.075
(3) For ships and boats made of iron, with fittings in wood:	
Oak of any sort	0.150
Other woods—	
In the trunk or unsawn	0.200
Sawn—	
Above 5 centimeters in thickness	0.125
5 centimeters thick or less	0.075

Art. 2. Repayment of duty shall be granted at the ship-builder's demand. The request shall be addressed on stamped paper to the director of direct contributions, customs, and excise in the province where the dock-yard is situated. The importation of wood on which repayment of duty is requested must be supported by the entry discharges delivered in the name of the applicant since the coming into force of the aforementioned law of the 12th of April, 1864. These documents must not be dated more than three years previously, subject to exceptional cases left to the discretion of the minister of finance.

Art. 3. Tonnage of vessels for the repayment of duty in the terms of article 1 shall be fixed conformably with our decree of the 21st of July, 1863.

Art. 4. Orders for repayment shall be issued by the directors of direct contributions, customs, and excise in the form prescribed for other repayments in customs matters.

(Signed,) LÉOPOLD.

By His Majesty's Command:
(In the absence of the minister of finance),
The Minister of Justice,
(Signed,) Victor Tesch.
Berne, *October 21, 1864.*

WOOD EMPLOYED IN SHIP-BUILDING—RETURN OF IMPORT DUTY.

Léopold II, King of the Belgians, to all to whom these presents shall come, greeting.

On reconsideration of the royal decree of the 21st of October, 1864, fixing the basis for repayment of import duty paid on wood proved to have been used in building ships and boats, having regard also to the law of the 20th of June, 1883, modifying the capacity of ton measurement of ocean-going vessels, and the royal decree of the 27th of August, 1883, further regulating the system of measuring such vessels, at the instance of our minister of finance, we have decreed and do decree:

Single article.—In modification of the royal decree of the 21st of October, 1864, the sums to be refunded under the head of import duties paid on wood proved to have been used in building ships and boats shall be calculated in respect to ocean-going ships according to the maximum quantities set forth in the above-named decree, taking as a basis the gross tonnage expressed in tons of shipping of 2.83 cubic meters.

Our minister of finance is charged with the execution of the present decree.

(Signed,) LÉOPOLD.

By His Majesty's Command:
The Minister of Finance,
(Signed,) A. Beernaert.
Laeken, *June 25, 1886.*

PORTUGAL.

REPORT FROM THE BRITISH LEGATION AT LISBON.—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Mr. Petre to the Marquis of Salisbury.

LISBON, *March 12, 1889.*

MY LORD: In accordance with the instructions contained in your lordship's circular dispatch of the 20th of December last, I have the honor to transmit the following information, which I have received from Senhor Barros Gomes respecting subsidies granted by the Portuguese Government to shipping companies.

As no ocean-going steamers are constructed in this country, the information relates, of course, exclusively to subsidies in aid of lines of steamers.

Subsidies to Portuguese steam navigation companies.

To the line between—	Per annum.	
	Milreis.	
Portugal and Azores	25,500	£5,666
Portugal and Madeira	15,000	3,333
Lisbon and Algarve	14,000	3,111
Cape Verde aud Guinea	23,000	5,112
Portugal and Mozambique (Portuguse Royal Mail)*	98,000	21,778
Total	175,500	39,000

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* At present, instead of the sum stated (98 contos reis = £21,778), as the above-mentioned company's steamers are not yet running, the agents of the English Castle Mail Packet Company, Messrs. E. Pinto Basto & Co., receive an annual subsidy of 69,250 milreis, or £15,389.

I have, etc.,

(Signed,) GEORGE G. PETRE.

DENMARK.

REPORT FROM THE BRITISH LEGATION AT COPENHAGEN.—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Mr. Macdonell to the Marquis of Salisbury.

COPENHAGEN, *February 8, 1889.*

MY LORD: With reference to your lordship's circular dispatch of December 20 last, I have the honor to transmit herewith a copy of a note which I have this day received from Baron de Rosenörn-Lehn in reply to the inquiries which I had addressed to his excellency with respect to bounties or subsidies accorded in Denmark in aid of the construction or running of ships.

I have, etc.,

(Signed,) H. G. MACDONELL.

[Translation.]

COPENHAGEN, *February 6, 1888.*

M. LE MINISTRE: By your note of the 24th of December last, you asked for information on the question as to whether bounties or subventions to ship-building or navigation were given in Denmark.

In reply, I have the honor to inform you, sir, that this State gives neither bounty nor subvention to ship-building. As to navigation, the United Steam-ship Company has received from the State since the 1st of January, 1888, a subvention of 12,500 crowns (£694) a month for maintaining the Esbjerg-Parkeston line, and since the month of March, 1888, a subvention of 3,000 crowns (£166) monthly for maintaining a steam-boat service between Esbjerg and England, with the special object of conveying swine. But it is still doubtful whether these two grants now provided for will re-appear in the budget of 1889–'90. Lastly, the North German Lloyds receives an annual subvention amounting at present to 35,600 crowns (£1,977) for maintaining the Warnemünde-Kroghage line.

I have, etc.,

(Signed,) ROSENÖRN-LEHN.

FRANCE.

REPORT BY CONSUL-GENERAL RATHBONE, OF PARIS.

I have the honor to submit a report showing the amount of money annually paid by the Republic of France for the encouragement of the mercantile marine of that country and under what conditions.

BOUNTIES TO SHIP-BUILDERS.

The law of May 19, 1866, had given French ship-builders the privilege of importing free of duty all materials intended for ship-building, but a new law, promulgated on the 29th of January, 1881, abolished that privilege. As a compensation for the tax imposed upon the ship-builders by the customs tariff they are allowed the following bounties:

(1) On wooden ships of less than 200 tons, 10 francs ($1.93) per ton, gross measurement; on wooden ships of 200 tons or more, 20 francs ($3.86) per ton, gross measurement; on composite ships (those built of wood outside, but having beams or ribs of iron or steel), per ton, gross measurement, 40 francs ($7.72); on iron or steel ships, 60 francs ($11.58) per ton, gross measurement; on the motory engines and auxiliary apparatus, 12 francs per 100 kilograms ($1.05 per 100 pounds); on changing boilers the ship-owner is allowed a compensation of 8 francs per 100 kilograms (70 cents per 100 pounds) of new boilers, weighed without the pipes and of French make. Any modification or alteration of a ship whereby its tonnage is increased entitles to a bounty calculated as per above tariff on net increase of tonnage. The above allowances, after delivery of the register, are paid by the customs collector of the port nearest the place of construction.

(2) Article 9 of the law provides a compensation for the burden laid upon the mercantile marine by the recruiting of sailors for the French navy by a premium on navigation allowed to French steam and sailing vessels for a period of ten years from the promulgation of the present law. This bounty applies only to long voyage navigation, which includes all ports beyond those

situated between Gibraltar and the north of Europe and in the Mediterranean and Black seas. Ships employed in the great and small fisheries, subsidized lines, and pleasure-boats in general are excepted from the bounty. The bounty is fixed at 1.50 francs (29 cents) per ton net register and per 1,000 miles run for ships of French build or those made French before the promulgation of the law. The number of miles is calculated by the distance between the starting points and the points of arrival, measured by a direct maritime line.

The bounty decreases yearly at the rate of 0.075 francs ($0.014) per ton on wooden or composite ships and 0.05 francs (1 cent) per ton on iron ships. The bounty on ships built abroad is only one-half of that stated above. It could be increased 15 per cent. for steamers built on plans approved by the navy department. In case of war the merchant ships can be requisitioned by the Government. The total amounts expended under the provisions of the law for allowances and bounties to French ship-builders from 1881 to 1887, inclusive, were as follows:.

Years.	Amounts paid to ship-builders.	Premiums on navigation.	Total.
1881	$183,522	$575,312	$758,834
1882	876,335	1,246,512	2,122,847
1883	609,937	1,633,704	2,233,651
1884	865,599	1,657,742	2,523,341
1885	217,927	1,460,435	1,078,362
1886	580,084	1,462,622	2,042,706
1887	281,294	1,586,203	1,867,497

The following tables give the details of the disbursements made by the French Government:

Statement showing the bounties paid by the French Government to builders of ships in France.

Classification of ships built.	1881.		1882.		1883.	
	Aggregate tonnage.	Amount of bounties paid.	Aggregate tonnage.	Amount of bounties paid.	Aggregate tonnage.	Amount of bounties paid.
	Tons.		*Tons.*		*Tons.*	
Wooden ships of less than 200 tons, 10 francs ($1.93) per ton	7,868	$15,184	8,619	$16,636	7,906	$15,259
Wooden ships of 200 tons or more, 20 francs ($3.83) per ton	834	3,220	1,196	6,546	895	3,455
Iron or steel ships, 60 francs ($11.58) per ton	9,776	113,210	58,187	673,803	38,416	444,862
	Pounds.		*Pounds.*		*Pounds.*	
Machinery, 12 francs per 100 kilograms, or $1.05 per 100 pounds	3,554,041	37,336	15,119,366	158,832	11,389,450	119,649
Changing boilers, 8 francs per 100 kilograms, 70 cents per 100 pounds	2,080,748	14,572	2,929,672	20,518	3,814,146	26,712
Total	....	183,522	....	876,335	....	609,937

Statement showing the bounties paid by the French Government, etc.—Continued.

Classification of ships built.	1884.		1885.	
	Aggregate tonnage.	Amount of bounties paid.	Aggregate tonnage.	Amount of bounties paid.
	Tons.		*Tons.*	
Wooden ships of less than 200 tons, 10 francs ($1.93) per ton	9,545	$18,423	6,550	$12,641
Wooden ships of 200 tons or more, 20 francs ($3.83) per ton	2,345	9,052	2,735	10,558
Composite ships, 40 francs ($7.72) per ton	13	101	....	....
Iron or steel ships, 60 francs ($11.58) per ton	54,668	633,055	11,574	134,024
	Pounds.		*Pounds.*	
Machinery, 12 francs per 100 kilograms, or $1.05 per 100 pounds	16,744,933	175,909	3,870,010	40,656
Changing boilers, 8 francs per 100 kilograms, or 70 cents per 100 pounds	4,149,112	29,059	2,862,517	20,048
Total	....	865,599	....	217,927

Classification of ships built.	1886.		1887.	
	Aggregate tonnage.	Amount of bounties paid.	Aggregate tonnage.	Amount of bounties paid.
	Tons.		*Tons.*	
Wooden ships of less than 200 tons, 10 francs ($1.93) per ton	7,442	$14,363	5,220	$10,074
Wooden ships of 200 tons or more, 20 francs ($3.83) per ton	1,189	4,590	766	2,958
Iron or steel ships, 60 francs ($11.58) per ton	31,708	367,176	15,643	181,147
	Pounds.		*Pounds.*	
Machinery, 12 francs per 100 kilograms, or $1.05 per 100 pounds	16,551,675	173,879	6,341,766	66,622
Changing boilers, 8 francs per 100 kilograms, or 70 cents per 100 pounds	2,866,622	20,076	2,926,111	10,493
Total	....	580,084	....	281,294

BOUNTIES TO MERCANTILE MARINE.

The following statements show the bounties paid to the French mercantile marine, according to the tonnage and the number of miles run:

1.—*Iron or steel ships built in France or made French before the promulgation of the law of 1881.*

[The bounty is fixed at 29 cents per ton net register and per 1,000 miles run; it decreases yearly at the rate of 1 cent per ton, according to the age of the ship.]

Year.	Number of ships.	Number of voyages.	Tonnage.	Number of miles run.	Amount of bounties paid.
			Tons.	*Miles.*	
1881	98	114	96,218	1,480,991	$393,316
1882	119	296	159,714	3,278,924	739,442
1883	122	323	154,546	3,390,671	1,018,709
1884	127	329	172,401	3,313,795	1,094,527
1885	121	321	165,552	3,293,270	995,096
1886	117	319	165,216	3,009,788	1,035,172
1887	121	362	167,037	3,335,930	1,163,710

2.—*Wooden or composite ships built in France or made French before the promulgation of the law of 1881.*

[The bounty is fixed at 29 cents per ton net register and per 1,000 miles run; it decreases yearly at the rate of 1.4 cents per ton, according to the age of the ship.]

Year.	Number of ships.	Number of voyages.	Tonnage.	Number of miles run.	Amount of bounties paid.
			Tons.	*Miles.*	
1881	347	362	122,827	3,143,586	$157,019
1882	424	617	150,233	7,039,942	344,487
1883	371	604	122,252	6,169,125	281,000
1884	365	580	124,462	5,671,819	258,481
1885	321	561	106,263	4,556,488	203,761
1886	285	467	92,741	3,754,288	165,329
1887	272	445	84,769	3,683,517	162,312

3.—*Iron or steel vessels built abroad.*

[The bounty is fixed at 14.5 cents per ton net register and per 1,000 miles run; it decreases yearly at the rate of 0.5 cent per ton, according to the age of the ship.]

Year.	Number of ships.	Number of voyages.	Tonnage.	Number of miles run.	Amount of bounties paid.
			Tons.	*Miles.*	
1881	6	8	11,256	91,363	$24,803
1882	24	52	43,787	599,022	161,461
1883	42	110	73,492	1,213,382	331,033
1884	48	118	78,707	1,263,516	301,303
1885	50	119	79,059	1,362,078	256,927
1886	40	131	65,507	1,176,438	256,314
1887	41	137	72,001	1,125,617	254,194

4.—*Wooden or composite ships built abroad.*

[The bounty is fixed at 14.5 cents per ton net register and per 1,000 miles run; it decreases yearly at the rate of 0.5 cent per ton, according to the age of the ship.]

Year.	Number of ships.	Number of voyages.	Tonnage.	Number of miles run.	Amount of bounties paid.
			Tons.	*Miles.*	
1881	1	1	299	11,488	$174
1882	4	6	1,220	42,773	1,122
1883	6	9	1,971	96,479	2,962
1884	14	19	4,095	147,080	3,431
1885	18	27	5,140	202,856	4,651
1886	24	36	6,564	291,276	5,807
1887	24	44	6,280	330,748	5,987

FRENCH-AMERICAN LINES.

The following statements refer to steam-ship lines connecting the French ports with those of Central and South America and the West Indies. The chief of these lines are:

(1) Compagnie Générale Transatlantique, 5 Rue Halévy, Paris. (*a*) Line from St. Nazaire to Colon-Aspinwall (once monthly), touching at Point à Pitre, Basseterre (Guadeloupe), St. Pierre, Fort de France (Martinique), La Guayra, Puerto Cabello (Venezuela), Sabanilla, Aspinwall (Republic of Colombia).

(*b*) Line from St. Nazaire to Vera Cruz (once monthly), touching at Santander (Spain), Havana (Cuba), and Vera Cruz (Mexico).

(*c*) Line from Havre to Colon (once monthly), touching at Bordeaux (France), Santander (Spain), Point à Pitre, Basseterre (Guadeloupe), St. Pierre, Fort de France (Martinique), Trinidad (British West Indies), Campano, La Guayra, Puerto Cabello (Venezuela), Sabanilla, Colon-Aspinwall (Republic of Colombia).

(*d*) Line from Havre to Hayti (once monthly), touching at St. Nazaire (France), Bordeaux (France), St. Thomas (Danish West Indies), St. Jean, Mayaguez, Ponce (Porto Rico), San Domingo, Puerto Plata (San Domingo Island), Cape Haytien, Port-au-Prince, Jacmel (Hayti).

(*e*) Line from Marseilles to Colon and Aspinwall (once monthly), touching at Barcelona, Malaga (Spain), Teneriffe (Canary Islands), St. Thomas (Danish West Indies), Basseterre, Point à Pitre (Guadeloupe), St. Pierre, Fort de France (Martinique), Trinidad (British West Indies), Campano, La Guayra, Puerto Cabello (Venezuela), Carthagena, Colon-Aspinwall (Republic of Colombia).

In connection with these lines the Compagnie Générale Transatlantique runs steam-boats to and from the following points: Fort de France (Martinique), St. Lucia, Trinidad (British West Indies), Demerara, Surinam, and Cayenne (British, Dutch, and French Guiana).

(2) Compagnie des Messageries Maritimes, No. 1 Rue Vignon, Paris.—Line from Bordeaux to Buenos Ayres (once monthly), touching at Lisbon

(Portugal), Dakar (Senegal), Rio de Janeiro (Brazil), Montevideo (Uruguay), Buenos Ayres (Argentine Republic).

Line from Bordeaux to Buenos Ayres (once monthly), touching at Corunna, Vigo (Spain), Lisbon (Portugal), Dakar (Senegal), Pernambuco, Bahia, Rio de Janeiro (Brazil), Montevideo (Uruguay), Buenos Ayres (Argentine Republic).

(3) Compagnie des Chargeurs Réunis, 11 Boulevard des Italiens, Paris.—Line from Havre to Buenos Ayres. The service is an irregular one. The steamers generally start once a week, and touch at Teneriffe, Rio de Janeiro, Montevideo, and Buenos Ayres.

(4) Pacific Steam Navigation Company, 38 Avenue de l'Opéra, Paris.—Line from Bordeaux to Valparaiso (semi-monthly), touching at Lisbon, Rio de Janeiro, Buenos Ayres, Valparaiso.

Two of the foregoing lines receive financial assistance from the Government in the shape of subsidies for carrying the mails, viz: The Compagnie Générale Transatlantique is granted, for fifteen years from the 22d of July, 1886, an annual subsidy of 4,478,000 francs ($864,254) for carrying the mails between France and the West Indies, Mexico, and Central America.

The Compagnie des Messageries Maritimes has contracted for a period of fifteen years, from 1888 to 1903, to carry the mails semi-monthly between France, Lisbon, Dakar, Rio de Janeiro, Montevideo, and Buenos Ayres at the rate of about $1 per mile.

Subsidized lines do not receive the bounties provided for by the mercantile marine law of 1881.

List of the steamers employed, with their tonnage, passenger capacity, and number of voyages per year.

WEST INDIES AND CENTRAL AMERICA.

[Compagnie Générale Transatlantique.]

Names of steamers employed.	Tonnage.	Horse-power.	Number of berths.		
			First and second class.	Third class.	Steerage.
Amérique	4,700	3,300	237	82	104
France	4,700	3,300	233	62	114
Labrador	4,700	3,300	148	80	112
Canada	4,200	3,300	153	58	106
St. Laurent	4,200	3,300	141	68	101
St. Germain	3,700	3,200	236	78	210
Lafayette	3,600	3,200	148	80	112
Washington	3,600	3,200	234	53	....
Olinde Rodrigues	3,200	1,800	87	40	212
Ferdinand de Lesseps	2,900	1,700	53	44	448
Ville de Marseille	2,900	1,700	79	40	102
St. Simon	3,200	1,800	152	42	204
Ville de Bordeaux	2,800	2,700	122	30	....
Ville de St. Nazaire	2,800	2,700	119	30	....
Venezuela	950	650	44	23	....

The vessels sail on the 8th, 10th, 21st, and 22d of each month.

List of the steamers employed, with their tonnage, passenger capacity, etc.—Continued.

BRAZIL AND PLATA.

[Compagnie des Messageries Maritimes.]

Name of steamer employed.	Tonnage.	Horse-power.	Number of berths.	
			First and second class.	Third class and steerage.
Plata	5,225	5,500	217	726
Portugal	5,225	5,500	212	717
Equateur	3,724	5,000	152	357
Orénoque	3,705	2,400	180	544
Congo	3,600	2,400	168	515
Nerthe	3,000	2,400	180	501

Sailings on the 5th and 20th of each month.

FREIGHT CHARGES.

Average freight charges on merchandise from French ports to Colon, La Guayra, Rio de Janeiro, and Valparaiso are as follows:

From St. Nazaire to Colon, and La Guayra, per cubic meter, first-class goods, 100 francs and 10 per cent.; second-class goods, 75 francs and 10 per cent.; third-class goods, 50 francs and 10 per cent.

From Havre, Bordeaux, Marseilles to Colon and La Guayra, per cubic meter, first-class goods, 95 francs and 10 per cent.; second-class goods, 70 francs and 10 per cent.; third-class goods, 45 francs and 10 per cent.; fourth-class goods, 55 francs and 10 per cent. per ton.

From Havre to Rio de Janeiro and Buenos Ayres, per cubic meter, 50 francs and 10 per cent., and 2 francs for lading charges.

From Havre to Valparaiso, per cubic meter, or per 900 kilograms, first-class goods, 95 francs and 5 per cent.; second-class goods, 75 francs and 5 per cent.; third-class goods, 70 francs and 5 per cent.; fourth-class goods, 65 francs and 5 per cent.

J. L. RATHBONE,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Paris, September 20, 1889.

GERMANY.

REPORT BY CONSUL-GENERAL MASON, OF FRANKFORT-ON-THE-MAIN.

It was not until the 6th of April, 1885, that the Imperial German Government yielded to the tendency of the times and granted a special but liberal bounty for the establishment and support of certain specified new lines of steam-ship service. At that time German manufactures, which had developed rapidly under the system adopted since 1870, began to feel the want of more extensive foreign markets and a larger, cheaper supply of certain raw materials which could not be produced at home. The obvious recourse was to establish new and permanent steam-ship connections with the remote markets of Asia, Australia, and the Levant, and for this purpose the Imperial Government, in the spring of 1885, entered into a contract with the North German Lloyd Steam-ship Company for a carefully prescribed service during a period of fifteen years. The convention was drawn with great care and precision, and includes thirty-four articles, the substance of which may be roughly stated as follows:

For a cash subsidy of 4,400,000 marks ($1,047,619) per annum the company contracted to establish and work three lines of steam-ship service, viz:

(1) The East Asian line, making thirteen voyages annually from Bremerhaven to and from Shanghai, touching at a Dutch or Belgian port to be designated by the imperial chancellor, besides Port Said, Aden, Suez, Colombo, Singapore, and Hong-Kong, with a branch or junction line from Hong-Kong via Yokahama, Hioga, and a Corean port (to be likewise designated by the chancellor) to Nagasaki, and thence return to Hong-Kong.

(2) The Australasian line making thirteen voyages each year from Bremerhaven to Australia, touching en route at a Dutch or Belgian port, Port Said, Suez, Aden, the Lagos Islands, Adelaide, and Melbourne to Sydney, with a branch line or feeder from Sydney via the Tonga Islands to Apia, in the Samoan group, and thence back to Sydney.

(3) A semi-monthly line from Trieste via Brindisi to Alexandria.

The entire service is regulated by minute and elaborate specifications. During the voyages to and from eastern Asia, an average speed of at least 12 knots an hour must be maintained. The Australian line is required to make 11½ knots per hour and the Mediterranean line 12 knots. Penalties in the shape of forfeitures of from $250 to $1,200 may be inflicted for all unnecessary failures to follow the prescribed schedule of voyages, and for delays without sufficient cause a fine of 50 marks per hour may be assessed by the Government authorities. For this service the North German Lloyd Company bound itself to provide nine steam-ships, of which at least six were required to be built specially for the purpose according to the most carefully detailed specifications, and the remaining three were to be ready for service within eighteen months after the contract was signed. All the vessels were to be built of German materials, in German ship-yards, upon plans approved by the imperial chancellor, and before going into commission had to be approved by a Government board of experts. Then follow in the agreement several clauses specifying the position of postal officers and employés on board, and the manner in which the imperial mails are to be handled and forwarded. Hamburg and Bremen are to enjoy equal freight rates, and Government freight, troops, prisoners, and employés are to be transported at 20 per cent. less than the ordinary tariff. The sale of any of the subsidized steamers is forbidden, except by permission of the Government, and in case of war the chancellor may take possession of one or more of the vessels at their full value or hire them for a proper consideration. In case of dispute between the contracting parties each shall choose two arbitrators, who shall collectively elect an umpire, and the board thus constituted shall decide all questions is controversy.

Such, in substance, is the compact under which the Asian, Australasian, and Mediterranean lines of the North German Lloyd have been operating since 1886. Has the experiment realized expectations? Two quotations from recent and high authorities will answer.

The British legation at Berlin, writing in reply to an inquiry from the home office, says:

> How well founded was the expectation that a prosperous future awaited the new enterprise is manifested by the fact that the German mail steamers to east Asia have surpassed in speed the old-established French and English lines. The passenger and goods traffic is on the increase, as well as the conveyance of mails, which has been augmented by the growing use made of German mail steam-ships by foreign postal administrations.
>
> By the establishment of great lines of its own the imperial postal administration finds itself in the satisfactory position of being able to offer, on terms of reciprocity, a reduction in the interchange of mails, and thus to improve the mail traffic—to the furtherance of German interests—with other important countries not touched by German lines.

Kuhlow's German Trade Review (No. 243, September 4, 1887) says editorially:

> Of particular importance in the development of German trade with China is the position occupied by German steamers and coasters. The number, and particularly the carrying capacity, of the German steamers which afford communication between Germany and China, or which transport foreign goods to the latter country, is very largely increasing. The success attained by the subsidized steamers of the North German Lloyd Company deserves to be specially referred to; for over a year the four-weekly service has appeared to be insufficient. The quantity of cargo offered from Bremerhaven direct to Hong-Kong and Shanghai, and *vice versa*, is so great that the intermediate ports can only be relatively little provided for. The passenger traffic of the English and French lines has also been surpassed. Of the first importance is the circumstance that German ship-owners have attained a very influential position in the whole of the coasting trade of China. As far back as 1886 (?) no less than thirty-five German steamers were engaged in that trade; these steamers belong to small ship-owners at Flensburg, Kiel, Apenrade, and Husum, and to the Mannheim Hausa. Subsequently a Hamburg line has been established by means of which the treaty ports in the southern part of China are, in particular, well served; this line has also largely promoted the trade with the treaty ports above named, which had been previously largely in the background.

The magnificent new steamer *Kaiser Wilhelm II*, which recently made a trial voyage to New York, was built for the eastern Asia line and has already taken her place in the service to Hong-Kong and Shanghai.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, September 27, 1889.

HAMBURG.

REPORT BY CONSUL JOHNSON.

Communication between Hamburg and the ports of Central and South America and the West Indies is furnished by the Hamburg-American Packet Company, the Hamburg-Südamerikanische Dampfschifffahrts Gesellschaft, the Deutche Dampfschifffahrts Gesellschaft Kasmos, and the Hamburg-Pacific Dampfschiffs Linie (A. Kirsten).

The Hamburg Chamber of Commerce states that it is not possible to say how much merchandise is shipped from the United States to Central and South America by way of Hamburg.

CHAS. F. JOHNSON,
Consul.

UNITED STATES CONSULATE,
Hamburg, October 23, 1889.

ITALY.

REPORT BY MINISTER DOUGHERTY, OF ROME.

Referring to instruction dated July 23, 1889, making certain inquiries as to the financial assistance granted by the Italian Government to steam-ship lines, I have the honor to state that this legation has just come into possession of the information called for, and that the preparation of these data has precluded a more prompt reply being made to said communication. I have now the honor to submit the following facts and figures covering all the said inquiries:

SUBSIDIES.

Upon the simple condition that the subsidized lines must carry the mails gratuitously the Italian Government now expends annually the sum of $2,066,551.20 in subsidies to the following companies: To the company known as the Navigazione Generale Italiana, $1,902,551.20, distributed according to the following services: India service, $216,000; India-China service, $111,974.40; Levant service, $399,524.80; Red Sea service, $96,000; Batavia service, $60,000; Egyptian service, sailing from Genoa, $60,000; Mediterranean service, including the Sicily and Sardinia lines, $927,711.20; and for the service of the smaller islands, $31,340.80. To the Peninsular and Oriental Company for its Egyptian service (the vessels sailing from Venice), $155,000. To the Neapolitan Company, known as the Societa Napolitano di Navigazione a Vapore, for the Gulf of Naples and Gaeta service, $9,000.

CONSTRUCTION BOUNTIES.

Apart from what, in the Italian marine, is styled as subsidy, there also exists a system of bounties awarded under certain conditions to Italian vessels. For instance, a premium called the construction bounty, amounting to 12 cents per ton of gross measurement, is awarded for every iron or steel steam-ship constructed in Italy. For wooden sailing ships the construction bounty amounts to 3 cents per gross ton. A special recompense of the value of from 10 to 20 per cent. increase beyond the sum paid as construction bounty is given to those vessels made adaptable to serve for war purposes.

There is likewise an award of 20 cents per ton granted to national ships carrying a cargo of coal into Mediterranean ports from beyond the Straits of Gibraltar; besides another system of bounties known as navigation premiums by which every vessel, steam and sailing, flying the Italian flag is entitled to an award of 13 cents on every ton of net measurement for every 1,000 nautical miles traveled in sailing from the Mediterranean (including also the Sea of Marmora, the Black Sea, Sea of Azof, and the Danube), after having passed the Suez Canal and the Straits of Gibraltar, going to non-European ports, as well as to such vessels returning from ports beyond the limits named.

COAL AND NAVIGATION PRIZES.

The coal and navigation prizes constitute important items in the record of the Italian merchant marine. The latest available statistics under these headings relate to the year 1887. During that year 107 sailing ships, of a total tonnage of 58,956 tons, and 11 steam-ships, of a total tonnage of 15,721, brought into Italy 173,289 tons of coal, for which the following sums were awarded in coal bounties: Sailing vessels, $19,029.14; steam-ships, $15,628.61.

In 1887, 36 steam-ships, aggregating 63,297 tons, were inscribed to compete for the navigation bounties; only 32, however, received prizes. The sum thus given in bounties was $224,780.80, distributed among the following companies and ship-owners: Navigazione Generale (with 24 ships), $134,230.34; La Veloce, $38,112.37; Lavarello Bros., of Genoa, $10,103.49; Schiaffino & Solari, $10,207.92; Carlo Raggio, $6,630.75; G. B. Repetto, $6,312.85; Bartolomeo Marzino, $4,336.61; and Michele Amoroso, $14,846.47.

As the Department's inquiry related solely to steam-ships, I do not give the amount paid in navigation bounties to sailing vessels. Vessels belonging to lines subsidized by the Government are excluded from participating in the right to special bounties.

ITALIAN-AMERICAN COMMUNICATION.

The second inquiry in the Department's communication is as to the companies furnishing communication between the ports of Italy and Central and South America and the West Indies.

Up to the present time no Italian steam-ship company has established a regular line for Central American ports. Indeed, just now, no Italian vessels sail for those countries. It is different, however, with reference to ports in South America. Regular voyages are made to South American ports by vessels of the companies Navigazione Generale Italiana (whose chief office is in Rome) and La Veloce and Lavarello (whose head-quarters are in Genoa).

These are the three principal lines. There are also in Genoa other ship-brokers whose ships make voyages to South American ports.

Some of the ships of the Navigazione Generale likewise make voyages at fixed periods to certain Pacific coast ports in South America, but I have been informed that this line may be shortly discontinued. None of the companies receive, however, any special subsidy for the lines in question.

The Department's instruction also calls for a statement showing the amount of money paid annually by the Italian Government for the transportation of ocean mails, with the terms and conditions of such payments, as well as for a statement showing the average rates of freight charged by subsidized Italian vessels to the principal ports of Central and South America. As has already been said, none of the lines running to the American continent enjoy special subsidies from the Italian Government. The subsidies granted for all other ocean service are enumerated in my answer to inquiry No. 1.

C. A. DOUGHERTY,
Minister.

UNITED STATES LEGATION,
Rome, September 21, 1889.

No. 112——4.

NETHERLANDS.

COMMUNICATED BY COUNT DE BYLANDT TO BRITISH LEGATION, FEBRUARY 20, 1889.—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Statement of subsidies granted to steam navigation companies by the Netherland and Netherland-Indian Governments.

Name of line receiving the subsidy.	Line to which the subsidy is granted.	Obligatory number of voyages.	Duration of contract.	Subsidies.
Steam-ship Company, Nederland.	Amsterdam-Batavia, v. v..	Every fortnight in every direction.	Indefinite, with possibility of giving notice from year to year.	156,000 florins per annum (the half being at the charge of the India post administration), of which sum are deducted the fines, amounting sometimes to 2,000 guilders per annum. Besides, for transport of parcel post from and to India, per parcel, at the rate of 57.5 cents per kilogram; above 1 to 3 kilograms, 1.75 florins; above 3 to 5 kilograms, 1.575 florins; and for transport of Government passengers, first class, 750 florins; second class, 425 florins; and third and fourth class, 250 florins. Return cargo is assured for each trip journey to the amount of 210 lasts of coffee or kina, and 30 lasts of tin, at the rate of 75 florins per last of coffee from the north coast of Java, and 80 florins from the south coast; 70 florins for a last of 950 kilograms for kina bark, and 30 florins for a last of 2,000 kilograms for tin.
Steam-ship Company, Rotterdamsche Lloyd.	Rotterdam-Batavia, v. v...	.........do...........................	Finishes in June, 1889.......	7.9 florins (15 francs) for a kilogram of letters and postal-cards, and 47 cents (1 franc) for a kilogram of other postage, except parcel post This amounted during the year (July 1, 1887–'88), from the Netherlands, for the account of the Netherlands post administration, 14,611.585 florins; and from India, for the account of the India post administration, 10,042.415 florins. Besides, for transport of parcel post and Government passengers the same as above; whilst through the Nederlandsche-Handels-Maatschappij cargoes can be obtained of 5,000 pikols coffee, or, if laden at Tjilatjap, of 10,000 pikols, at the rate of the freights above mentioned.
Nederlandsch Indische Stoomvaart Maatschappij.	Batavia-Soerabaya, v. v...	Six times a month............	Till the end of December, 1890.	3.90 florins for every traveled mile (15 miles to 1 degree), this amounting, during the last years, on the Indian budget, to 3⅓ to 3⅙ tons of gold (a ton is 100,000 florins).
	Batavia-Tjilatjap, v. v. (the latter service to be opened in the course of 1889).	Every two months.		
	Batavia via Padang to Atjeh, v. v.	Every fortnight.		
	Padang-Atjeh, v. v.........	Once a month.		
	Batavia-Singapore, v. v...	As a rule, once in four weeks.		
	Batavia via Singapore to Atjeh, v. v.	Do.		
	Batavia-Palembang, v. v..	Once a month.		
	Palembang-Djambi, v v..	Do.		

	Rivuri-Bengkalis, v. v.	As a rule, once in four weeks.		
	Batavia-Pontanak, v. v.	Once a month.		
	Soerabaya-Koeter, v. v.	Do.		
	Soerabaya-Mollukes, v. v.	Do.		
	Macassar-Kendaribay, v. v.	Do.		
	Macassar-New Guinea, v. v.	Four times a year.		
	Macassar-Timor Islands, v. v.	Once a month.		
Red line at New York	Curaçao-New York and Curaçao-Venezuela, (Porto Cabello, La Guayra, and Maracaibo.)	About thirty-one times a year.		For transport of mail, 1,200 florins are paid yearly by the Colony Curacao.
Koninklyke West Indische Maliedienst.	Amsterdam, Paramaribo, Demerara, Trinidad, Venezuela, Curaçao-New York.	Every month	Finishes in 1894; this contract was concluded for ten years.	36,000 florins per annum.
Zeeland Company	Flushing-Queenboro', v. v.	Twice daily	Contract signed October 1, 1888, for ten years.	40,000 florins yearly for transport of mails from and for the Netherlands. Besides, 260,000 florins are guarantied yearly for transport of foreign mails, calculated at the rate of payment by the foreign post administration of 2 francs for a kilogram of letters and post-cards, and 25 cents for a kilogram of other postage, with exception, however, of objects sent by parcel post. The exceeding of 260,000 florins from carriage of foreign mails is equally divided between the State and the company. For transport of parcels by parcel post, 5 cents is paid per parcel up to 3,178 kilograms, and 10 cents for 3,178 kilograms.

RUSSIA.

REPORT FROM THE BRITISH LEGATION AT ST. PETERSBURG—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Sir R. Morier to the Marquis of Salisbury.

(A)—COMPANIES WORKING EXCLUSIVELY IN RUSSIAN WATERS.

(1) The Amoor Steam-ship Company, working on the River Amoor, eastern Siberia:

An annual mileage payment not exceeding the sum of 245,000 silver rubles.

A guarantied annual payment for the carriage of Government stores of 135,000 silver rubles; the excess annually paid above the sum actually earned for the carriage of stores varies from 75,000 to 96,000 silver rubles.

Term of concession, December 31, 1891.

(2) The Caucasus and Mercury Company, working on the Caspian Sea:

For fixed services between Astrachan and the Russian and Persian ports on the Caspian, 345 voyages, making a total of 208,652 sea miles; annual payment, 275,400 silver rubles.

Term of concession, December 31, 1899.

For temporary extra service, annual payment 17,570.90 rubles.

(3) The Kiachta Steam-ship Company, working on Lake Baikal, eastern Siberia:

For bi-weekly service during six months' summer navigation, 10,400 versts at 2.50 rubles per verst; annual payment, 26,000 silver rubles.

For five trips between Listvenitchy and the mouth of the Upper Angara, 5,500 versts at 2 silver rubles per verst; annual payment, 11,000 silver rubles.

Term of concession, December 31, 1889.

(4) Feodoroff's Line of steamers, working on the River Suifoon, eastern Siberia:

Annual payment, 6,000 silver rubles.

(B)—COMPANIES WHOSE SHIPS VISIT FOREIGN PORTS.

(1) The Russian Steam-ship and Trade Company, working in the Black Sea and to Constantinople, Alexandria, Port Said, and the Levant:

For fixed services, 401,764 miles at 2 rubles per mile; annual payment, 803,528 silver rubles.

Concession expired but being renewed.

(2) The Volunteer Fleet (cruizers), working between Odessa and the Russian Pacific ports:

For seven fixed voyages between Odessa and the Pacific ports, 141,000 miles at 4.25 rubles per mile; annual payment, not exceeding 600,000 silver rubles.

Term of concession, February 24, 1892.

For two fixed voyages between Vladivostok and sundry ports on the Kamstchaka and Okotsk Seas; annual payment, 15,000 silver rubles.

Term of concession, September 19, 1892.

(3) Sheveleff's Line of steamers, working in the northern Pacific:

For fixed service between the eastern Siberian ports and open ports of Corea, Japan, and China, 3 rubles per mile for 37,000 miles; annual payment, 111,000 silver rubles.

Term of concession, June 17, 1903.

Full rate of 3 rubles per mile only up to 1898; for the remaining years of the term a reduction of 10 per cent. in the mileage rate will be made each year.

(4) The Archangel and Mourman Steam-ship Company, working in the White and Arctic seas:

For thirty-two voyages between the ports of Archangel and Vardoe and Kola, Kem, Kusomen, and Onega, and two voyages between Archangel and Nova Zembla; annual payment, not above 55,000 silver rubles.

Term of concession, May 7, 1895.

(5) The Black Sea and Danube Steam-ship Company, working between Odessa and Sistova on the Danube and Reni on the Pruth:

(*a*) For weekly service between Odessa and Sistova, 1.95 rubles per mile for 25,811 miles; annual payment, 50,322 silver rubles.

Term of concession, March 10, 1897.

(*b*) For fortnightly service between Odessa and Ismaïlia, 1 ruble per mile for 7,938 miles; annual payment, 7,938 silver rubles.

Term of concession, March 10, 1895.

(*c*) For weekly service between Sistova and Kladova, 2 rubles per mile for 12,780 miles; annual payment, 25,561 silver rubles.

Term of concession, March 10, 1897.

(*d*) For fortnightly service between Reni and Nemtseny, 1.50 rubles per mile for 5,600 miles; annual payment, 8,400 silver rubles.

Term of concession, March 10, 1897.

(*e*) For weekly service between Reni and Sistova, 2 rubles per mile for 14,560 miles; annual payment, 29,120 silver rubles.

Term of concession, March 10, 1897.

Grand annual total of all subsidies granted by Russian Government to steam-ship companies, 2,258,760.90 rubles.

I have not been able to ascertain that any direct assistance is given by the Russian Government for the construction of ships, but several of the works engaged in ship-building have at different times received considerable indirect assistance in the form of loans from the Government, and the advantageous placing with these establishments of important Government orders.

(Signed,) E. F. G. LAW,
Commercial Attaché.

ST. PETERSBURG, *April 13, 1889.*

SPAIN.

REPORT BY MINISTER PALMER, OF MADRID.

LEGISLATION CONCERNING SUBSIDIES.

In reply to the Department's No. 21, of July 23, 1889, instructing me to furnish a list of steam-ship companies receiving financial assistance from the Spanish Government, with the amount of such aid and other information belonging to the subject, I have the honor to report that there is at present but one company, the Spanish Transatlantic Company (La Compañia Transatlantica Española), which receives a subsidy from the Government, and which furnishes, in consequence of that subsidy, all the steam communication between the peninsula and the outside world. The requirements of the instruction can therefore best be fulfilled by a short sketch of Spanish legislation on the general subject of steam-ship subventions to the date of the establishment of the contract in force with the above-mentioned company, and by then examining the leading terms and principal conditions of the contract itself.

The first Spanish communication established by a regular steam-ship line was between the peninsula and the Antilles, in the year 1850. This line was at the expense of the State. Vessels were especially acquired for the purpose, were under the command of officers of the navy, and for some time made periodical trips. As the results were not such as were expected, contracts for the service were made with different commercial houses. It was performed, however, in an irregular way, and not until 1868 was a definite service established by a contract with the house of A. Lopez & Co., for a period of ten years, and a subsidy of 60,500 crowns ($30,250) for the round trip. Twelve vessels were required to make three monthly voyages from the peninsula and three others from Havana. The Compañia Transatlantica, by a cession from the house of Lopez & Co., with whom this contract was made, performed the service until the time that the contract now in force took effect.

For the purpose of connecting the peninsula with the ports on the Gulf of Mexico by a line connecting with the above line to the Antilles, the establishment of a steam-ship line between Havana and Vera Cruz, touching at Sisal, was four times offered for open bids; but was without result for lack of bidders, until in 1865 a contract was made for three years, renewable for two more, with the house of Lopez & Co., on a subsidy of 10,000 crowns ($5,000) for the return trip. Between the above points five vessels were required. This house in the same year transferred the service to the company bearing the name Line of Spanish Steam-ships of the Antilles and Gulf of Mexico (Linea de Vapores Correos Españoles de los Antillas y Seno Mejicaño). A contract was made in 1875 with the house of Herrera for the service from Havana to Porto Rico, with a subsidy of 15,000 pesetas ($3,000) for the round trip, which was amplified in 1878 by a third voyage, touching at the capital of the Republic of Dominica, the sum of 15,000 pesetas ($3,000) being paid for each of the round trips. From the 12th of October, 1880, stoppages were made in addition at Port-au-Prince and Puerto Plata, 750 pesetas ($150) being assigned for each. In 1881 a contract was made with the Marquis de Campo for the service between Havana and Porto Rico, Havana and Vera Cruz, Havana and Colon (Aspinwall), and Havana and La Guayra, with the subsidy of 42,500 pesetas ($8,500) monthly, and for a period of ten years; but this line only lived until December, 1883, when the contract was rescinded. It continued running provisionally, however, until the establisbment of the contract with the Compañia Transatlantica, by means of a special contract with the house of Herrera, of Havana, although limited to Cuba, Porto Rico, and San Domingo, with six vessels and a subsidy of 8,500 pesos ($8,500) for three voyages.

SUBSIDIES AND ITINERARIES.

The contract with the Compañia Transatlantica Española, which superseded all others, was a great advance in the development of steam communication between Spain and her colonies and foreign ports. It was approved by the council of ministers on November 17, 1886, ratified by the Cortes, and published on June 26, 1887. The services called for, with the rate of speed and amount of subsidy applicable to each, are as follows:

(1) From Cadiz and Santander to the Antilles, thirty-six voyages. The vessels from the latter port to connect with some ports of Northern Europe, and of those from Cadiz there must be one stoppage per month in the Canaries. All trips must be extended to New York and Vera Cruz, and one each month to La Guayra, Puerto Cabello, Sabanilla, Carthagena, and Colon. On the opening of the canal at Panama, one monthly trip to Guayaquil. Monthly connections must also be made on the Pacific (using the Panama Railway) from Valparaiso to San Francisco; and on the Atlantic from New York to New Orleans, from Havana to New Orleans, from Havana to Savannah, Charleston, Georgetown, Baltimore, and Philadelphia, and from New York to Boston and Quebec. Average annual rate of speed for above trips, 11.50 knots an hour from the date of the taking effect of the contract, 12 knots an hour from October 1, 1888, and 12.50 knots from January 1, 1893. For prolongation of the line, 10 knots an hour. Rate of subsidy, 10.18 pesetas per mile ($2.03½); for service in connection with other lines 0.75 pesetas (14.6 cents) for extent of transit. The opening of the Panama Canal is to entail no further expense on the Government than the payment of tolls.

(2) Thirteen round trips a year from an English port and touching at Spanish ports, to be decided upon by the Government; leaving the peninsula from the port of Barcelona for Manila via the Suez Canal, and thereby bringing Spain and the Philippines into connection with Havre, London, Antwerp, Hamburg, Marseilles, Genoa, Naples; with Kurachee and Bushire (on the Persian gulf); Zanzibar and Mozambique on the west coast of Af-

rica; Bombay, Calcutta, Sydney, Batavia, Hong-Kong, Shanghai, and Yokohama. Average annual rate of speed, 10.15 knots an hour from the date of taking effect of the contract, 11.15 knots from June 1, 1890, and 12.50 knots from January 1, 1895. Rate of subsidy, 7.15 pesetas per knot ($1.43).

(3) Six round trips a year from some French Mediterranean port or some port in the Bay of Biscay (Gulf de Gascogne), touching at ports in the peninsula to be determined by the Government and leaving the port of Cadiz for Buenos Ayres, with stops at the Canaries, Rio de Janeiro, Montevideo, and others, which may be fixed in the itineraries established by the Government. These voyages must establish connection between Cadiz and the principal ports of the Mediterranean when the port of departure is in the Bay of Biscay, and with the principal ports of the Bay of Biscay when the port of departure is in the Mediterranean. Average annual rate of speed, 11 knots an hour. Subsidy per knot, 5.93 pesetas ($1.08½).

(4) Four round trips a year from Cadiz, connecting with Barcelona for Fernando Po, touching at Laraicke, Mazagan, Mogador, Las Palmas (Canary Islands), Rio de Oro, Cape Verde, and Monrovia. Rate of speed, 8 knots an hour. Rate of subsidy, 5.93 pesetas ($1.08½) per knot.

(5) Twenty-four voyages a year between Malaga and Ceuta, Algeciras, Tangier, and Cadiz, with prolongation to Laraiche, Rabat, Mazagan, and Mogador eight times a year, thus completing, with the four voyages from Fernando Po, twelve annual communications between these ports and those mentioned above, and one hundred and four voyages between Cadiz and Tangier and return.

Average rate of speed, 8.50 knots an hour. Rate of subsidy, 5.93 pesetas ($1.08½) per knot.

PROVIDING FOR THE SUBSIDIES.

For meeting the subsidies required for the execution of the contract the Government is authorized to appropriate an annual maximum sum of 8,445,222.28 pesetas ($1,689,044.45), to be distributed in the respective budgets in the following proportions: 4,615,782 pestas ($923,156.40) to the peninsula, 2,359,083.40 pesetas ($471,836.68) to Cuba, 337,026.20 pesetas ($67,405.24) to Porto Rico, and 1,133,230.67 pesetas ($226,646.13) to the Philippine Islands. The subsidy is paid to the company in monthly installments.

The duty of carrying the mails is assumed by the company on its own responsibility without further pay than the general subsidy fixed by the contract for each line.

FREIGHT RATES.

The following table will show the average rate of freights established by the company and approved by Royal order of December 6, 1889.

Classification of principal merchandise exported to South America:

Class 1.—Textiles, boots, saffron, wines, fine chocolate, fans, cards, paper.

Class 2.—Beans, almonds, raisins, oil, alcohol, olives, books, cork.

Class 3.—Common wine, machinery, building material.

Class 4.—Salt.

Tariff of freight per 500 kilograms with 10 per cent. primage from Spanish ports.

To—	Class 1.	Class 2.	Class 3.	Class 4.
	Pesetas.	*Pesetas.*	*Pesetas.*	*Pesetas.*
Rio de Janeiro	49	45	35	20
Montevideo	49	45	35	20
Buenos Ayres	49	45	35	20

Tariff of freights, in pesetas, per ton of 1,000 kilograms, with 10 per cent primage to Spanish ports, from Buenos Ayres, Montevideo, and Rio de Janeiro: Wool 20, sugar 25, tallow 20, cotton 90, grain 20, cacao 90, hides 50, and coffee, 90 pesetas.

Classification of merchandise from Spanish ports to West Indies and Atlantic ports:

Class 1.— Art objects, fans, gloves, hair, ivory, laces, millinery goods, ribbons, dress silks, and velvets.

Class 2.—Fire-arms, boots and shoes, brushes, books, chocolate, cloth, cutlery, carriages, chemicals, cotton textiles, clothing, clocks, drugs, furniture, hats and caps, mirrors, miners' goods, musical instruments, metals, paper, perfumery, porcelains, skins, woolen goods, notions.

Class 3.—Agricultural implements, candles and soap, corn, glass, corks, dried fish, rice, domestic utensils, flour, furniture, glass-ware, iron goods, refined sugar, India-rubber goods, lime and cement, liquors, mineral water, marble, wire, machinery, nuts, etc., oils, printing-paper, provisions, wine.

Freight per 1,000 kilograms from Spanish ports on merchandise.

To—	Class 1.	Class 2.	Class 3.
	Pesetas.	*Pesetas.*	*Pesetas.*
Porto Rico	100	75	50
Havana	100	75	50
Vera Cruz	100	75	50
La Guayra	100	75	50
Puerto Cabello	100	75	50
Sabanilla	100	75	50
Cartagena	100	75	50
Colon	100	75	50
*Via Havana.**			
New Orleans	148	117	86
Savannah	155	125	114
Charleston	164	145	121
Georgetown	157	136	116
Baltimore	154	130	100
Philadelphia	147	118	97
Boston	147	123	93
New York (direct)	142	108	81

*To Atlantic ports via Havana 10 per cent. off.

In cases where the Government is desirous of encouraging the development of or trade in certain articles, the Government can demand from the company a reduction of 10 per cent. in the regular rate of freight within a limit of 1,000 tons annually to and from the Antilles, and 500 tons annually to and from the Philippine Islands.

T. W. PALMER,
Minister.

UNITED STATES LEGATION,
Madrid, October 2, 1889.

SWEDEN.

REPORT FROM THE BRITISH LEGATION AT STOCKHOLM.—TRANSMITTED BY CONSUL-GENERAL NEW, OF LONDON.

Sir F. Plunkett to the Marquis of Salisbury.

STOCKHOLM, *January 4, 1889.*

MY LORD: In reply to the inquiry made in your lordship's circular dispatch of the 20th ultimo, I have the honor to report that bounties or subsidies for the construction of ships are not granted in Sweden or Norway.

Payments are made for mails carried and for services rendered to the post-office on various coasting lines, but, as far as I can learn, the only subsidy of a special character is one for the maintenance of a weekly steam-boat service between Westerwyk and Libau.

By an arrangement concluded on January 26, 1887, Sweden and Russia undertook to contribute annually for this purpose: Sweden, 45,000 kronor; Russia, 10,000 kronor.

The only protection now given to native ship-builders is that foreign ships, transferred to the Swedish flag, pay an import duty of 10 per cent.

I have, etc,

(Signed,) F. R. PLUNKETT.

TURKEY.

In a report from the British legation at Constantinople (January 5, 1889), transmitted by Consul-General New, of London, Mr. W. H. White says: Dilaver Pasha, the prefect of the port, stated, in reply to my inquiries, that the Ottoman Government has never given any money bounties of the nature mentioned, but that timber destined for the construction of ships bearing the Turkish flag is allowed to be felled in State forests free of charge, and, further, that such vessels are, during the first two years of their existence, exempted from harbor dues in Ottoman ports. Beyond this, Dilaver Pasha was not aware of any facilities granted to ships by the Ottoman Government.

EUROPEAN SUBSIDIES.

REPORT BY CONSUL-GENERAL MASON, OF FRANKFORT-ON-THE-MAIN.

It is proposed to present in the following report a succinct statement of the methods employed by the leading nations of Continental Europe—particularly during the last ten years—to encourage the construction and navigation of merchant shipping, and to thereby secure to their respective peoples the important advantages in foreign commerce which are the heritage of those countries only which possess a commercial marine sailing under their own flag. The subject of ship-building is intimately related to that of import duties on foreign-built ships and materials of construction, and for the sake of closer comparison this exhibit will relate mainly to those European countries which, like the United States, maintain protective tariffs and are struggling to make head against the overshadowing maritime supremacy so long exercised by Great Britain. Foremost among these are France, Italy, Germany, and Spain, which will be considered in the order of their priority in relation to ship-building subsidies.

FRANCE.

The French statute for the encouragement of maritime construction and navigation was enacted on January 29, 1881. The law is in two sections, one providing bounties for construction, the other subsidies for the running of vessels under the French flag. The first section, that providing bounties on ship-building, has no limit of time; the part relating to navigation will expire in ten years, that is, January 29, 1891. The bounties granted to French ship-builders are as follows: On iron and steel vessels, 60 francs ($12) per ton, gross measurement. On vessels of composite build, in which steel or iron frames are overlaid with wooden sheathing, 40 francs per ton. For wooden ships under 200 tons burden the bounty is 10 francs, and for those over 200 tons 20 francs per ton, respectively. The act went into effect immediately, and with such prompt results that the bounties claimed and paid the first year for construction were nearly one million francs, and rose in the second year to more than four and a half millions. The record of the first six years' application of the bounty law in France was as follows:

Total construction bounties paid.

	Francs.
1881	950,899.57
1882	4,540,956.42
1883	3,160,297.92
1884	4,484,968.60
1885	1,129,152.51
1886	3,005,618.72
Total	17,271,533.74

The statistics for the subsequent years are not at this moment within reach, but it is of interest to know that the number of new vessels on which bounty was paid in 1886 was six hundred and ten, and that for the construction of the four splendid steamers of the Compagnie Générale Transatlantique, viz, the *Bourgogne*, *Bretagne*, *Champagne*, and *Gascogne*, the French Government paid 2,537,712 francs, or nearly half a million of dollars.

In order to render the system more tangible, it may easily be estimated that an iron or steel steamer costing in France $250,000 would receive as construction bounty about $44,000; an iron or steel sailing ship of 1,500 tons burthen would claim likewise $18,000, a wooden ship of 1,000 tons $4,000, and a composite vessel of similar burthen $8,000, respectively. New French engines and boilers put into a hull of foreign origin receive a bounty of about $16 per ton.

But this is not all. The subsidies awarded by the same law for navigating French-built ships exceed in amount the bounties paid for construction. This allowance is based upon a maximum rate of 1.50 francs (about 30 cents) per gross ton for each 1,000 miles run during the first year after their construction. There is then a complicated sliding scale of rates for each subsequent year of a ship's life, the diminution being about 1 cent on each ton per 1,000 miles run for each successive year. Thus, a steel or iron vessel which would be entitled to 1.50 francs per ton and 1,000 miles the first year would draw 1.45 francs the second year, 1.40 francs the third, 1.35 francs the fourth, and so on down to the twenty-sixth year, when the rate would be only 25 centimes (5 cents) per ton for each 1,000 miles of voyage made. In this manner subsidies amounting to 5,363,583.72 francs were paid in 1886 for three hundred and nineteen voyages made by ships with an aggregate register of 432,508 tons, running 3,009,788 nautical miles.

Has the French system been successful? A glance at the ship-yards along the Seine, the Garonne, and the Bay of Toulon, as well as the ports of Havre, Bordeaux, and Marseilles, with their regular and busy steam-ship lines to South America, India, China, and Australia, bringing the raw materials of those remote countries to France and returning freighted with the products of French industry, would afford a ready and conclusive answer.

SPAIN.

The Spanish law of June 25, 1880, grants a bounty of 40 francs ($7.72) per measured ton of 2.83 cubic meters on the tonnage of all vessels constructed in Spain. It also returns all tariff duties which may have been paid on imported materials for building, careening, or repairing vessels or their machinery, it being provided that the duties so refunded shall be based on the weight or bulk of the materials in the completed work. Besides this, the Spanish Government pays, under a system similar to that of Great Britain, a long list of annual subsidies to different steam-ship lines for carrying the mails. On some lines, as, for instance, the one from the peninsula to the West Indies, the subsidy amounts to something more than 10 francs ($1.98) for every maritime mile run during thirty-six voyages in each year.

Without being at all a complete list, the following, which comprises eight lines, will give a correct idea of the subsidies paid for navigation each year by the Spanish Government under the form of awards for carrying the mails:

Lines.	Voyages per year.	Per mile run.	Amount paid.
		Francs.	*Francs.*
Peninsula to the West Indies	36	10.18	3,154,293
Barcelona to Philippine Islands	13	7.15	1,493,334
Cadiz to Buenos Ayres	6	5.93	383,837
Cadiz and Fernando Po	4	5.93	168,412
Malaga, Tangier, and Cadiz	24	5.93	85,675
Tangier and Cadiz	104	5.93	70,899
Archipelago and Philippine Islands			743,500
Postal service with Mariana Island			120,000
Coasting steamer at Porto Rico			30,000
Total			*6,249,955

* Equivalent to $1,202,693.

ITALY.

The Italian shipping bounty law was enacted on the 6th of December, 1885, for a period of ten years. It was inspired and suggested by the experience of France, which had, at that time, about four years' experience with its statute of a similar nature. Under the Italian law bounties for construction are awarded as follows:

(1) Steam and sail vessels of iron and steel, 60 lire* ($11.58) per ton, gross measurement.

(2) Steam and sailing vessels built of wood, 15 lire ($2.89) per ton.

(3) "Gallegianti" (which term comprises merchant vessels navigating the Italian sea-board or canals, but not provided with a certificate of nationality), 30 lire ($5.79) per gross ton.

(4) Bounty on marine engines, 10 lire ($1.93) per indicated horse-power.

(5) Bounty on marine boilers, 6 lire ($1.15) per 100 kilograms (2.20 pounds) of weight.

(6) For steam-ships, engines, and boilers built on plans approved by Government engineers and so constructed as to be available for military purposes in time of war the above bounties are increased from 10 to 20 per cent., according to the degree of speed and other desirable qualities realized. In order to be eligible to this increased bounty a steamer must embody the following qualities:

(*a*) An official speed record of not less than 14 miles an hour.

(*b*) Sufficient water-tight bulk-heads to enable her to float with one compartment broken in and filled with water.

(*c*) Sufficient fuel space to carry coal for steaming 4,000 miles at 10 miles per hour.

The law also forbids the sale or charter to any foreign party of any steamer on which construction bounty has been paid, except by express permission of the Government, to be obtained in each case.

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* 1 lira = 19.3 cents.

Eighteen months after the enactment of the law a new tariff was adopted, which so increased the import duties on ship-building materials that in order to offset this disadvantage to ship-builders a royal decree was published on March 22, 1888, increasing by about 20 per cent. all the bounties granted by the original law of December, 1885. As examples of this increase the bounty on iron and steel ships was raised from 60 to 77 lire per gross ton, and on marine engines from 10 to 12.50 lire indicated horse-power. It is well known that the Italian navy has in recent years undergone extraordinary improvements, some of its most recently built fighting ships being considered among the most formidable now afloat. It may be of interest to know that such of those war vessels as were built by private contract in Italian yards received bounties under a special schedule established by the law now under consideration, as follows: For the hulls of iron or steel war-ships, 50 lire ($9.65) per gross ton; for the engines of war-ships, 8.50 lire ($1.64) per horse-power, indicated; for the boilers of war-ships, 9.50 lire ($1.83) per 220 pounds; for hydraulic apparatus and subsidiary engines, 11 lire ($2.12) per 220 pounds. Article 10 of the same law provides a system of subsidies for the navigation of all Italian vessels, sail or steamer, plying between any port of the Mediterranean or Black seas and another port outside those waters; that is, in order to receive this subsidy, the vessel must pass, either outward or homeward bound, through the Straits of Gibraltar or the Suez Canal. The bounty is 13 cents per ton of gross measurement for every 1,000 miles run, the distance being estimated on the shortest sea route from port to port. Under this article subsidies for navigation were paid in 1886 and 1887 as follows:

Steam-ships.—1886, number of voyages, 129; mileage, 691,237; bounty earned, 833,444 lire; 1887, number of voyages, 162; mileage, 901,358; bounty earned, 1,123,904 lire.

Sailing vessels.—1886, number of voyages, 1,016; mileage, 5,706,615; bounty earned, 2,495,515 lire; 1887, number of voyages, 945; mileage, 5,466,108; bounty earned, 2,407,229 lire; total sail and steam in two years, 6,860,094 lire.

Besides this, the Italian Government pays annually to two steam-ship companies—the Navigazione Generale Italiana and the Peninsular and Oriental Steam-ship Company—the following subsidies for carrying the mails:

	Lire.
To the Navigazione Generale Italiana for services in the Mediterranean	5,133,340
To the Navigazione Generale Italiana for services in the Levant	1,988,360
To the Navigazione Generale Italiana for services to Indo-China	1,939,872
To the Navigazione Generale Italiana for services in the Red Sea	480,000
To the Peninsular and Oriental Steam-ship Company for semi-monthly service between Venice, Ancona, Brindisi, and Alexandria	775,000
Total per annum	*10,316,572

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* Equivalent to $1,991,616.

BELGIUM.

The Belgian Government pays no direct bounties for ship construction, but admits free of duty bolts, nails, copper-plates, timber for masts and spars, cordage, iron and winches, and remits the duty which may have been paid upon planking and other lumber used in ship-building. Besides this, the Government pays to the North German Lloyd Steam-ship Company for carrying its mails to eastern Asia and Australia a direct subsidy of $15,440 per annum, and remits the light-house and pilotage dues on all vessels of the company in the River Scheldt. Since 1887 the Red Star line has received a yearly subsidy of 380,000 francs ($73,340) for a weekly mail service between Antwerp and New York. Besides these subsidies, the Belgian Government maintains, at an expense of about $97,805 per annum, two special mail services, one between Ostend and Dover, the other from Antwerp to La Tete de Flandre.

PORTUGAL.

Portugal has no ship-yards capable of building ocean-going steam-ships, but the Government pays to the Portuguese Steam Navigation Company $175,500 per annum for carrying its mails to the Azores, to Madeira, Algarve, Guinea and Mozambique.

GREAT BRITAIN.

The policy of Great Britain is too well known to require elaborate statement here. Since the days when the United States Government subsidized the Collins line and Great Britain did the same for the Cunard, the latter Government has paid no direct bounties for ship-building or navigation until recently, when Parliament voted a subsidy of $300,000 per annum for ten years in aid of the new Canadian line from Vancouver Island to Hong-Kong. But, during all this intervening period of thirty years, British exports have been carried to the remotest corners of the earth in steamers which received heavy mail subsidies from the national treasury. Although disguised as payments for postal services actually rendered, these grants have had, as they were intended to have, the effect of direct, regular, and liberal Government subsidies for the creation and maintenance of steam-ship lines in the interests of English commerce.

BOUNTIES AND SUBSIDIES THE RULE IN EUROPE.

Thus we might follow the subject throughout Europe and find nearly everywhere a similar spirit and governmental policy. There is scarcely a maritime nation in the old world which is not now struggling either by means of direct bounties on construction and navigation or by liberal subsidies for mail service, or remission of duties on ship-building materials to foster and sustain a commercial marine under its own flag.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, September 27, 1889.

DOMINION OF CANADA.

REPORT BY CONSUL HOTCHKISS, OF OTTAWA.

Agreeably to instructions, I beg to inform the Department that the following facts and particulars are all that I have been able to learn relating to the subject-matter of steam-ship subsidies and bounties. It will be observed that no information is conveyed relating to mail contracts with steam-ship companies. I am compelled to state that the party whom I have employed to gather the facts herein transmitted informs me that he was not able to procure information on this desired point. On the return of the postmaster-general (now daily expected home) I will make renewed efforts in person with his department, and such information as I may obtain will be transmitted through a supplemental report.

On the 1st day of July, 1888, all existing subsidies were canceled, except one to the Allen line, which is statutory, for $126,533. During the session of Parliament of 1889, which convened in February last, the following resolutions relating to steam-ship subsidies were passed, viz:

Resolved, That it is expedient to provide that the governor in council may give to any individual or company a subsidy not exceeding the sum of £25,000 per annum to assist in establishing an effective fortnightly steam-ship service between British Columbia and the Australian colonies and New Zealand; such subsidy to be given for such term of years and on such conditions as the governor in council may consider expedient.

Resolved, That it is expedient to provide that the governor in council may give to any individual or company to whom may be given by the Government of the United Kingdom of Great Britain and Ireland the aid hereinafter mentioned a subsidy not exceeding the sum of £15,000 per annum for a monthly steam-ship service, or a subsidy not exceeding the sum of £25,000 per annum for a fortnightly steam-ship service, between British Columbia and China and Japan, such subsidy to be given for such term of years as may be considered expedient by the governor in council; provided always, that during such term the Government of the United Kingdom of Great Britain and Ireland gives to such individual or company a subsidy of not less than £45,000 per annum for the monthly service, or of not less than £75,000 per annum for the fortnightly service, above mentioned.

Resolved, That it is expedient to provide that the governor in council may enter into a contract for a term not exceeding ten years with any individual or company for the performance of a fast weekly steam-ship service between Canada and the United Kingdom, making connection with a French port, on such terms and conditions as to the carriage of mails and otherwise as the governor in council deems expedient, for a subsidy not exceeding the sum of £500,000 per annum.

I fail to learn that the Canadian Government is paying any subsidies to the steam-ship lines of the Canadian Pacific Railway. It is understood that the Canadian Pacific Railway have or are about to enter into contract with the Dominion Government for a monthly service between British Columbia, China, and Japan under the provisions of article 2 of the before-mentioned resolutions.

The Canadian Government is about closing a contract with the Andersons, of London, England, for a fast steam-ship line, under provisions of article 3 of said resolutions. Said negotiations, it is understood, have received a temporary check under disagreements as to the rate of speed to be maintained by the new steam-ships.

The Canadian Pacific Railway Company is carrying the ocean mails without subsidy, but at a rate per ton which I have failed to learn.

There is authorized by statute that $126,533 be paid yearly to the Allen line of steam-ships for a weekly service between Canada and Liverpool. This subsidy will terminate on the establishing of the fast line Atlantic service provided for in article 3 of stated resolutions.

I fail to learn if any steam-ship subsidies or bonuses are now in actual force of payment, except to the Allen line, between Canada and Liverpool. The whole question of subsidies would appear to be, at this time, in a transition state, and would seem to be in abeyance, pending the conclusion or completion of proposed action under the resolutions of the last Parliament, and prior to which adoption all other subsidies have been canceled, except those statutory to the Allen line only.

I have not deemed it necessary to make a list of those subsidies which the Dominion Government has ceased paying, under the supposition that the Department desired only what they were paying and the general status as at present found. Undoubtedly, within the present year this Government will have renewed contracts with steam-ship companies by which larger bounties or subsidies will be again paid, and to which end they are at present negotiating.

THOS. W. HOTCHKISS,
Consul.

UNITED STATES CONSULATE,
Ottawa, August 5, 1889.

SUPPLEMENTAL REPORT BY CONSUL HOTCHKISS, OF OTTAWA.

By the act of confederation between British Columbia and the Dominion Government the Dominion Government agreed to aid in the maintenance of a steam-ship line between British Columbia, San Francisco, and Olympia.

An act (35, Victoria, 1872, page 87, item 4).

The Dominion will provide an efficient mail service fortnightly by steam communication between Victoria and San Francisco, and twice a week between Victoria and Olympia, the vessels to be adapted for the conveyance of freight and passengers.

An order in council was passed May 16, 1871, under the authority of the above act, appropriating the sum of $17,640 per annum to this service, and it is annually found in the appropriation supply bill of the Dominion. The contract for this service is made and continued yearly with Goodhall & Perkins of San Francisco, and is for a fortnightly service The Government officials speak of this contract with this firm in the highest terms of praise regarding the manner in which its terms have been respected. "Why!" says the official, "they only contracted for a fortnightly service and they are giving us a weekly service right along." No terms or conditions of any

Government contracts are obtainable or are made public. The Imperial Government is not paying any sum to Canadian steam-ship lines for account of present service.

I have official information that the Dominion Government have concluded a contract with the Andersons, of London, England, for the "fast steam-ship service" as authorized by the provisions of section 3, of the act created under bill No. 144, herewith in duplicate.

(Printed bill No. 144 is the same as the verbatim copy thereof in the original of this report.)

I am informed that the maximum speed to be maintained under the above agreement alluded to with the Andersons is 18 knots. Steam-ship lines are in contemplation to run between Canada and South American ports and the West Indies. Sealed tenders are invited for this service to be made the 31st of this month of August. A printed copy inviting such tenders is herewith subjoined.

TENDERS FOR STEAM SERVICE—CANADA, WEST INDIES, AND SOUTH AMERICA.

Sealed tenders, addressed to the minister of finance, and marked on the outside "Tender for steam service, Canada, West Indies, and South America," will be received at the finance department, Ottawa, up to and including Saturday, the 31st of August next, for any or all of the following services, namely:

(1) From Halifax or St. John to Cuba and return, calling at Havana and Matanzas.

(2) From Halifax or St. John to Jamaica and return, calling at Bermuda and Turk's Island.

(3) From Halifax or St. John (via Yarmouth if sailing from St. John) to Demerara and return, calling at Bermuda, St. Kitts, Antigua, Guadeloupe, Dominica, Martinique, St. Lucia, Barbadoes, and Trinidad.

For the above services other ports than those mentioned, or in addition thereto, may be made ports of final destination, subject, however, to agreement between the Government and the person or company performing the service.

(4) From Halifax or St. John to Buenos Ayres and return, calling at Pernambuco, Bahia, Rio de Janeiro, and Montivideo, and such other convenient ports en route, either in the West Indies or South America, as may be agreed upon in the interest of trade.

For each of the above-mentioned services proper accommodation for the transport of mails must be provided.

The above services to be monthly and performed by steam-ships of a speed of not less than 12 knots an hour; and as regards the services marked 1, 2, and 3, of not less than 1,000 tons register, and with accommodation for at least thirty first-class passengers; and as regards the service marked 4, of not less than 2,000 tons register, and with accommodation for at least fifty first-class passengers.

As regards the services 1, 2, and 3, persons desiring to offer to perform the same with steamers of less capacity and speed than above mentioned may submit their tenders specifying the speed and capacity of the boats which they desire to offer, although the conditions above specified are those desired by the Government.

Separate tenders to be sent in for each service tendered for.

Tenderers will state the route tendered for and the subsidy required each year for a period of five years, giving also full specifications of the vessels to be employed and naming the earliest period at which they will be prepared to commence the service.

The minister of finance does not bind himself to accept the lowest or any tender.

W. FITZGERALD,
Assistant Deputy Minister of Finance.

FINANCE DEPARTMENT, *Ottawa, July 15, 1889.*

FROM THE SUPPLY BILL FOR 1889.

The following mail subsidies and subventions were voted at the last session of Parliament of 1889 for the financial years ending, respectively, June 30, 1889, and June 30, 1890:

Mail subsidies and steam-ship subventions.

Steam communication with the Magdalen Islands	$10,000
Steam communication between Grand Manan, N. B., and mainland	3,500
Subsidy to a line of steamers to run between Liverpool or London, or both, and St. John, N. B., and Halifax, N. S., a port in the Dominion to be the terminal port	25,000
Subsidy to steamer between Campbellton and Gaspe, and intermediate ports	12,500
Steam communication from Port Mulgrave, at the terminus of the Eastern Extension Railway, to East Bay, Cape Breton	4,500
Steam communication between Port Mulgrave or Pictou Railway terminus and Cheticamp, touching at Port Hood, Mabou, Broad Cove, Margaree, and Cheticamp, the local government having granted a similar amount conditionally on a Dominion vote for the same service	2,000
Steam communication between Prince Edward Island and the mainland	5,000
Steam communication between St. John and Ports in Basin of Minas, Parrsborough, Maitland, Summerville, Hantsport, Avondale, Windsor, Kingsport, Wolfville, etc.	3,000
Steam communication between Canso, Arichat, Guysboro, Port Hood, and Mabou, and such other places between above limits as are agreed upon, touching daily at Port Mulgrave, and also to provide for continuance of service during winter, on the Port Mulgrave and Canso section	4,000
Steam communication between Halifax and Newfoundland, via Cape Breton, at $200 per trip, not to exceed $2,000 per annum	2,000
Steam service between San Francisco and Victoria, B. C.	*17,640
Steam communication between St. John, Digby, and Annapolis	9,000
For a line of steamers to ply between the ports of Halifax and St. John, N. B., or either, and the West Indies and South America, or either	†60,000
Steam communication between the following ports:	
New Westminster and Victoria	7,500
Port Mulgrave and East Bay	2,000
Halifax and St. John, via Yarmouth and Port Medway	5,000
St. John, Digby, and Annapolis	2,500
Total	175.140

All of which, in conclusion of the subject, is respectfully submitted.

THOS. W. HOTCHKISS,
Consul.

UNITED STATES CONSULATE,
Ottawa, August 8, 1889.

AN ACT RELATING TO OCEAN STEAM-SHIP SUBSIDIES.

[Inclosure in Consul Hotchkiss's supplementary report.]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

(1) The governor in council may grant to any individual or company a subsidy not exceeding the sum of £25,000 per annum, to assist in establishing an effective fortnightly steam-

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* Under contract.

† *Vide* tenders invited.

ship service between British Columbia and the Australian colonies and New Zealand, or such proportion thereof as may be decided on by the governor in council to assist in establishing a monthly service with the said countries, such subsidy to be granted for such term of years, not exceeding ten, and on such conditions as the governor in council considers expedient.

(2) The governor in council may grant to any individual or company, to whom there is granted by the Government of the United Kingdom the aid hereinafter mentioned, a subsidy not exceeding the sum of £15,000 per annum, for a monthly steam-ship service, or a subsidy not exceeding the sum of £25,000 per annum, for a fornightly steam-ship service, between British Columbia and China and Japan, such subsidy to be granted for such term of years and on such conditions as the governor in council considers expedient: Provided always, that during such term the Government of the United Kingdom grants to such individual or company a subsidy of not less than £45,000 per annum for the monthly service, or of not less than £75,000 per annum for the fortnightly service, above mentioned.

(3) The governor in council may enter into a contract for a term not exceeding ten years with any individual or company, for the performance of a fast weekly steam-ship service between Canada and the United Kingdom, making connection with a French port, on such terms and conditions as to the carriage of mails and otherwise as the governor in council deems expedient, for a subsidy not exceeding the sum of $500,000 a year.

CANADIAN SUBSIDIES FOR 1890.

[Transmitted by Consul-General Lay, of Ottawa, under date of November 25, 1889.]

Subsidies authorized to be paid by the Government of Canada to steam-ship lines between Canada and Great Britain and foreign countries during the fiscal year ending June 30, 1890, with amounts paid during the fiscal year ended June 30, 1889.

Country.	Authorized for 1890.	Paid in 1889.
Great Britain (mail route, Halifax in winter, Quebec in summer), for fast weekly mail	$500,000.00	$126,533.33
Great Britain (London and Halifax and St. John)	25,000.00	26,000.00
Australia and New Zealand (for fortnightly service)	121,666.66	....
China and Japan: For monthly service	73,000.00	....
For fortnightly service	121,666.66	....
West Indies and South America (Halifax and St. John, or either)	60,000.00	....
San Francisco (Victoria)*	17,640.00	14,700.00
Newfoundland (Halifax)	2,000.00	2,000.00

* 10 trips.

The following subsidies were voted for 1888–'89, but are not voted for 1889–'90:

Country.	Voted.	Paid.
France (Quebec and Halifax)	$30,000	$30,000
Antwerp and Germany	30,000	....
St. Pierre (Halifax)	2,000	2,000

ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

I.—OCEAN COMMERCE.

The steam-ship lines connecting Buenos Ayres with foreign countries at the present time are as follows, viz:

(1) Lamport & Holt line, about fifteen steamers per month between the River Plate and Liverpool.

(2) The Royal Mail line, three steamers per month between Buenos Ayres and Southampton.

(3) The Pacific Steam Navigation Company, two steamers per month between Liverpool and Valparaiso, touching at Montevideo.

(4) Mensagarias Maritimas, French mail line, two steamers per month between Buenos Ayres and Bordeaux.

(5) French Navigation Company, two steamers per month between Buenos Ayres and Havre.

(6) Societé General de Transports Maritimes, two steamers per month between Buenos Ayres and Marseilles, Barcelona, Genoa, and Naples.

(7) Navigacioni General Italiani, two steamers per month between Buenos Ayres and the ports of the Mediterranean.

(8) Societa Lavarillo, three steamers per month between Buenos Ayres, Genoa, and Naples.

(9) Societa Piazzio, two steamers per month between Buenos Ayres and the ports of the Mediterranean.

(10) La Linea Valenciana, two steamers per month between Buenos Ayres and the Mediterranean ports.

(11) Chargeurs Reunis, two steamers per month between Buenos Ayres, Havre, and Dunkirk.

(12) North German Lloyds, two steamers per month between Buenos Ayres and Bremen.

(13) Hamburg and South American line, four steamers per month between Buenos Ayres and Hamburg.

(14) Kosmos line, two steamers per month between Hamburg and the Pacific, touching at Montevideo.

(15) Allan line, one steamer monthly between Buenos Ayres and Glasgow.

(16) Huston line, four steamers per month between Buenos Ayres and Liverpool.

(17) Holder line, three steamers per month between Buenos Ayres and England.

(18) Ellis & Morrison's line, two steamers per month between River Plate and Antwerp.

(19) Brazilian line, three steamers per month between River Plate and Rio de Janeiro.

There may be two or three lines not enumerated here whose names have escaped me, and during the wool season there is always quite an addition to the River Plate fleet.

It is impossible to state the total number of vessels employed or their tonnage, for the reason that the number is dependent on contingencies, many of the above companies having steamers which are in some other trades during a part of the year.

The monthly arrivals and departures now amount to between forty-five and fifty, respectively; indeed, there is hardly a day when there are not one or two steamers arriving and as many departing. Last month there were seventy-six arrivals.

II.—SUBSIDIES, ETC.

There are no data here by which any thing can be learned in reference to the financial assistance which any of the different lines of steam-ships receive from their respective governments, whether it be in the form of subsidy, bounty, mail pay, or otherwise. The offices here of these companies are mere agencies, which know but little about the financial affairs of the lines they represent. Such facts can only be obtained from the home offices. It is understood here that some of the English, French, Italian, and German companies are in some way assisted by the governments under whose laws they are organized, but the details must be obtained at the other end.

ARGENTINE AID.

The Argentine Government is not paying a cent to maintain steam communication with other countries, either to foreign or to domestic vessels. Europe puts on its steam-ship lines without any solicitation from this country. Years ago, under the administration of President Sarmiento, a subsidy of $25,000 per annum was voted for a line of steamers between New York and the River Plate, but nothing ever resulted from the offer. Subsequently, in 1888, a subsidy, I believe, of $100,000 was, by a contract *ad referendum* agreed to be paid to the New York and Brazil Steam-ship Company, provided it would run a separate line to Buenos Ayres without touching at Rio de Janeiro; and provided further, that the United States Government would vote an equal amount, but on the meeting of the Argentine Congress no one representing the company came forward to ask its ratification, and it was in this emergency that Mr. Huston offered his scheme, which was at once accepted by the Argentine Congress, for two lines, one to England and the other to the United States, this Government to pay a subsidy of 5 per cent. on the cost of the steamers. With the details of this concession you are already familiar, as I furnished the Department with a copy of the document in my dispatch No. 788. In regard to this proposed line, however, it is understood that nothing has been done, or will be done, as the proprietor failed to float the scheme in England, owing to the fact that the steamers were to be under the Argentine flag and subject to Argentine supervision, etc., conditions fatal to the securing of British capital for the project.

III.—IMPORTS FROM THE UNITED STATES.

As to what proportion of the imports into the Argentine Republic from the United States are received direct, and what proportion by way of Europe, I am not able to say, for the reason that there is no way of finding out how much comes here indirectly. All that is put down in the commercial returns as from the United States comes direct. In 1887 these direct imports amounted to $11,004,553, and in 1888 to $9,934,544. Whatever is imported from the United States by way of Europe is not credited in the returns to the United States at all. If shipments are made from New York via Liverpool by the Lamport & Holt line of steamers, in the Argentine commercial returns they are all credited to Great Britain. If they are made from New York by the North German Lloyds line via Bremen, they are all credited to Germany, and our own country is not known in the matter at all. For these reasons, and owing to the manner in which the Argentine returns are made up, the amount of American merchandise thus transshipped can not be given by me; but from an inspection of the bills of lading in these cases it appears that the goods thus transshipped, as a general thing, are not such as depend upon their bulk for their value, consisting of hardware, agricultural implements, live stock, lamps and gas fixtures, tobacco, hams, cheeses, plated ware, cotton textiles and other piece goods, duck, sail-cloth, etc.; and, from what the agencies of the steamers here inform me, they must amount, in the course of each year, to several millions of dollars. If properly classified, they would materially increase the sum total of our imports into this country; but, as it is, the statistics fail to show that a single cent's worth of this indirect trade really belongs to the United States, or ever came from there.

In regard to the rates of transportation, I am informed by the steam-ship companies that there is very little difference whether the merchandise is shipped by sailing veesels direct, or comes in steamers via Europe. Generally, in New York, sailing vessels for the River Plate are chartered for a lump sum, and in most cases the amount is so small as scarcely to pay the ship for transporting the cargo; but the broker who makes the charter exacts from the shippers full rates for all their shipments, thus making the principal share of the profit on the transaction. On the other hand, where steamers in New York receive cargo for the River Plate via Europe, they generally charge not more than the full rates direct, as an inducement to get merchandise to go forward by that route. And they have in their favor the consideration that steamers will deliver their cargo, not only in better time, but in better condition.

IV.—COINAGE, PAPER CIRCULATION, ETC.

The national mint of the Argentine Republic was opened for work in 1883. The extent and character of the coinage since then has been as follows:

Character of coin.	Number of coins.	Value.
Argentines (gold)	4,742,839	$23,715,270.00
Half-Argentines (gold)	430	
Dollars (silver)	573,737	2,805,839.60
Half-dollars (silver)	2,786,847	
20-cent pieces (silver)	2,393,995	
10-cent pieces (silver)	3,598,801	
2-cent pieces (copper)	11,231,202	301,338.59
1-cent pieces (copper)	7,671,335	
Total	32,999,246	26,822,448.19

This brings the coinage down to the end of the year 1887. The figures since have not been published, but the operations during last year were very active. Señor Agote, chief of the national credit office, in his last report states that he has the returns of 1888 up to the 15th of October, and that up to that date the amount coined was $6,750,000. If we add this amount to the $26,822,448.19 coined up to the end of 1887, it will give $33,572,448.19 as the total amount coined up to the 15th of October, 1888.

By the law in reference to coinage, a copy of which I have already furnished the Department, foreign gold coins were to be excluded from legal circulation when the amount of $8,000,000 of Argentine gold had been coined, so that at the end of 1887 the amount was $15,715,270 in excess of the requirement. And foreign silver coins were to be excluded from circulation when the amount of $4,000,000 of Argentine silver had been coined, so that $1,194,160.40 is still wanting to complete the requirement.

The silver product of the Argentine Republic is exceedingly unimportant, though the amount produced is gradually increasing as improved mining facilities are made use of. The following figures show the product for the last three years:

1886	$37,687
1887	114,843
1888	974,972
1889 (6 months)	678,581

The character of the circulating medium here is radically paper, being the notes of fifteen banks organized under a general banking law on somewhat the same basis as our own. These banks have a subscribed capital of $200,233,000, and the amount of notes in circulation on December 31, 1888, was $151,160,496, secured by a deposit of Government bonds. By the terms of the law of *curso forsoro* (forced currency) these notes, however, are not required to be redeemed in gold; and under this suspension of specie payments their circulating value in gold is now only about 55 cents to the dollar. During the present year several other banks have organized under the law, and the actual amount of bank-notes now in circulation is somewhere in the neighborhood of $170,000,000. It is probable that this amount will be still further increased before the end of the year. But, of course, the greater the issue of unconvertible paper the greater the depreciation in its value and the higher the premium on gold.

V.—EXPORTS OF CEREALS, DRESSED MEAT, AND WOOL.

The value of agricultural products exported during the year 1888 was as follows:

Articles.	Amount.	Value.
	Tons.	
Bran	1,325	$33,132
Peas	5	167
Canary-seed	1,559	93,589
Barley	239	6,596
Fruits	5	30,906
Linseed	40,222	2,131,813
Maize	160,020	5,376,689
Pea-nuts	1,393	55,721
Potatoes	248	9,958
Baled hay	9,250	238,303
Beans	37	1,878
Turnip-seed	3	166
Other seed	46	1,877
Wheat	178,910	8,247,751
Total		16,228,548

The exports of agricultural products in 1887 amounted to $21,268,141. The decrease in 1888 was owing to the fact that, although there was a larger breadth than ever before in crops, the harvest was very seriously impaired by a continuation of wet weather.

However, the amount of flour exported in 1888 was 6,392 tons, valued at $639,244, against 5,401 tons, valued at $378,076 in 1887.

The amount of dressed meat exported from this country in 1888 was as follows:

Description.	Amount.	Value.
	Kilograms.	
Frozen sheep carcasses	18,247,988	$1,459,679
Frozen beef carcasses	41,581	3,326
Frozen other meats	359,456	33,184
Total		1,496,189

Nearly all this dressed meat went to England, the rest to France.

The amount of wool exported in 1888 was 131,743,339 kilograms, valued at $44,858,608; the amount of sheep-skins exported was 6,698,408 kilograms, valued at $5,608,013. I am not able to give a table showing the countries to which the shipments of wool and sheep-skins were made, for the reason that the detailed custom-house statistics of 1888 have not yet been published. It may be stated generally, however, that nearly one-half went to Dunkirk, France, for orders, and that a large proportion of the other half went to Germany and Belgium, respectively, the United States getting nearly all the rest, being the carpet wools of Cordoba.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, August 27, 1889.

BRAZIL.

REPORT BY MINISTER ADAMS, OF RIO DE JANEIRO.

On receipt of Department's instructions I sent a note to the foreign office here seeking the information requested therein. Receiving no reply as yet, I have made personal effort to obtain it, and am greatly indebted to Mr. W. C. Peck, an American citizen engaged in the shipping business here for twenty years. I have the honor to inclose his statement. If I receive an official reply from the foreign office, I will forward it at once.

Owing to a change in the direction of the mint, I have not been able to answer interrogatory No. 7 as yet.

ROBERT ADAMS, JR.,
Minister.

UNITED STATES LEGATION,
Rio de Janeiro, October 9, 1889.

BRITISH FLAG (EIGHT LINES).

(1) *London and Antwerp direct line to Brazil.*—This service is performed by steamers chartered for the purpose, having none of their own. Arrivals here are four and five per month. They generally sail from this port or Santos in ballast homewards, seeking employment. Cargo capacity, 2,000 to 3,000 tons. No passengers. No State aid. Freight rate, 20 to 30 shillings per ton.

(2) *Direct line to Brazil from London, Hamburg, and Antwerp.*—This service is about equal in all respects to that of the above-mentioned company. The steamers of both lines sometimes go as far as Rio Grande do Sul and Porto Alegre. Freight rate, 20 to 30 shillings per ton. No State aid.

(3) *Royal Mail Steam-packet Company.*—From Southampton to River Plate; fortnightly sailings from each end, touching both ways at Brazilian ports; sailing dates strictly observed. This company have a large and magnificent fleet of fast passenger and cargo steamers and employ the requisite number in this trade to make fortnightly sailings, also giving extra voyages when required. Passenger accommodation, 200 to 250 first class, 150 second class, and 500 to 700 third class; cargo space, about 3,500 tons each. The steamers now on this route are nearly all new, and make very rapid voyages. Freight rate, 25 to 40 shillings per ton. The company operates in other directions also. Receives State aid.

(4) *Liverpool, Brazil, and River Plate Steam Navigation Company (limited).*—From Liverpool, London, and Antwerp to Brazilian ports, as far as Santos, and direct to River Plate.

Regular arrivals in Rio de Janeiro from Europe, six to eight per month; extra voyages as required; also direct to River Plate ports without calling here. This company has a fleet of over fifty steamers, and have, in addition to these, a great many chartered steamers. It is impossible to give more than a bare outline of their operations. The steamers arriving here and in Santos from Europe are generally sent homewards via United States ports in the absence of cargo in the Plate. Other steamers of the direct service are sent here also to be loaded for United States ports; if no cargo is obtainable, these latter proceed homewards in ballast. In addition to the above service a line subsidized by Belgium (fortnightly sailings) is run from Antwerp direct to the Plate, touching here on the homeward voyage. This line is intended for passengers, and can accommodate 50 to 60 first class, 30 to 40 second class, and 60 to 100 third class. But few of the other steamers have passenger accommodation, and in these it is limited. The cargo capacity of the steamers is from 2,500 to 5,000 tons. The company also operates coastwise from Rio de Janeiro to Rio Grande do Sul, Pelotas, and Porto Alegre, weekly sailings each way. No State aid except to the Belgian line. Freight, 25 to 40 shillings per ton.

(5) *Pacific Steam Navigation Company.*—From Liverpool to the west coast of South America, touching at Brazilian and River Plate ports both ways. The service is fortnightly from each end; sailing dates strictly observed; extra voyages as required. Their fleet is composed of nearly all new and magnificent steamers, and are larger than those of the Royal Mail Company. They operate on the west coast, coastwise, and to Australia also. Freight rate, 25 to 40 shillings per ton. Receives State aid.

(6) *Shaw, Savill & Albion Company* (*limited*).—Monthly service from New Zealand to London, calling at Rio de Janeiro. These steamers are very fine and fast. Accommodation for 120 first-class, 100 second-class, and 300 third-class passengers; cargo, about 4,000 tons each. Freight rate, 30 to 40 shillings per ton. Receives State aid. Extra voyages when required.

(7) *New Zealand Shipping Company* (*limited*).—Monthly service from New Zealand to London, touching at Rio de Janeiro. Steamers, etc., same as those above described. Freight rate, 30 to 40 shillings. Receives State aid.

(8) *Gulf line of steamers.*—From Liverpool and Antwerp for west coast of South America, touching here once or oftener per month as required. Small passenger accommodations. Cargo space, 3,000 to 3,500 tons each. No State aid.

GERMAN FLAG.

Hamburg-Südamerikanische Dampfschifffahrts-Gesellschaft.—Weekly sailings from Hamburg, calling at Brazilian ports as far as Santos; extra voyages as required; also six to eight sailings monthly direct to Plate ports; these latter call at Rio de Janeiro on the homeward voyages, thus giving from nine to twelve monthly homeward sailings from Rio de Janeiro. Fleet consists of thirty-five steamers with cargo capacity of 2,000 to 3,000 tons each. Accommodations for 40 to 60 first-class, 30 second-class, and 100 to 200 third-class passengers. Freight rate, 25 to 30 shillings per ton. No State aid.

Robert Slowman line, Hammonia.—From New York and Baltimore to Brazilian ports as far as Santos, returning to United States, calling here and at other ports. Fleet consists of steamers with cargo capacity of 2,500 to 3,000 tons each; voyages each way as frequent as possible. No passenger accommodation. Freight rate, 25 to 35 shillings per ton. No State aid.

North German Lloyds.—Monthly and fortnightly sailings from Bremen and Antwerp, as demand requires, for Brazilian ports as far as Santos, and direct service to the Plate, the latter calling here on homeward voyages, thus giving two to four homeward sailings per month from Rio de Janeiro. Steamers accommodate 50 to 100 first-class, 50 second-class, and 200 to 300 third-class passengers. Cargo capacity, 2,000 to 3,000 tons each. The company have a very large fleet, and operate in other directions also; they put extra steamers in this service as required. Freight rate, 25 to 30 shillings. Receives State aid.

ITALIAN FLAG.

Navigazione Generale Italiana Societe Reunita, Florio e Rubatino.—This company operates from Mediterranean ports in many directions. The service to Brazil and the River Plate is carried on by a very large fleet, which run direct to the Plate. Arrivals here from Europe are three to six per month as required. Their fleet consists of about one hundred steamers. Can accommodate 50 to 200 first-class, 60 second-class, and 500 to 1,500 third-class passengers. Cargo capacity, 1,500 to 3,500 tons each. Freight rate, 20 to 30 shillings per ton. Receives State aid.

Company La Veloce.—From Mediterranean ports as far as Santos; also direct to Plate. Voyages, two to four per month, both ways as required. Accommodations for 60 to 70 first-class, 50 second-class, and 600 to 1,500 third-class passengers. Freight rate, 20 to 30 shillings per ton. No State aid.

AUSTRIAN FLAG.

Austro-Hungarian Lloyds.—From Trieste as far as Santos. Regular monthly sailing, fortnightly when required, touching at Brazilian ports both ways. Can accommodate 40 to 100 first-class, 50 second-class, and 100 to 200 third-class passengers. Cargo capacity, 2,500 to 3,500 tons each. Freight rate, 25 to 35 shillings per ton. The company has a large fleet, and puts on steamers as needed. Receives State aid.

Adriatic Navigation Company.—From Fiume as far as Santos, regular monthly voyages, calling at Brazilian ports both ways; extra voyages when required. No passengers. Cargo capacity, 2,000 to 3,000 tons each. No State aid.

FRENCH FLAG.

Messageries Maritimes.—From Bordeaux to River Plate, fortnightly sailings from each end; sailing dates strictly observed; touching at Brazilian ports both ways; also direct service to the Plate. The fleet is composed of magnificent steamers making very rapid voyages. Can accommodate 200 to 300 first-class, 150 second-class, and 700 to 800 third-class passengers. Cargo space, 2,500 to 3,500 tons each. Operate to other parts of the world also; extra voyages as required. Freight rate, 30 to 40 shillings per ton. Receives State aid.

Compagnie Chargeurs Reunis.—From Havre as far as Santos, fortnightly sailings from each end, calling at Brazilian ports both ways; also direct to the Plate, these frequently calling here on homeward voyage; extra voyages as required; operate also to other ports. Can accommodate 50 to 70 first-class, 30 to 40 second-class, and 100 to 200 third-class passengers. Cargo capacity, 2,000 to 2,500 tons each. Freight rate, 25 to 35 shillings per ton. Receives State aid.

Societe Generale des Transports Maritimes.—From Marseilles and other Mediterranean ports to the River Plate, calling at Brazilian ports outwards and homewards; also direct to Rio de Janeiro and Santos. This company make voyages as frequently as possible, say, two to four times per month, and at times a greater number; they operate to other parts of the world also. Can accommodate 50 to 70 first-class, 24 to 40 second-class, and 700 to 1,500 third-class passengers. Cargo capacity, 2,000 to 3,500 tons each. Freight rate, 25 and 35 shillings per ton. Receives State aid.

BRAZILIAN FLAG.

Companhia Transatlantica Brazilina.—Just organized; will trade from Brazil to north of Europe and Mediterranean ports. Receives State aid.

Companhia Brazilina de Navigacao a Vapor.—Three voyages per month as far as Manaos. Very fine and fast steamers; nearly all new. Receives State aid.

Companhia Nacional de Navegacao a Vapor.—Frequent regular voyages to southern ports of Empire and as far as Montevideo, also river service thence to upper Brazil; are constructing a number of new steamers. Receives State aid.

In addition to the three lines the Government subsidizes a great number of smaller coast lines operating from here and other ports of the Empire.

AMERICAN FLAG.

United States and Brazil Mail Steam-ship Company.—Voyages from New York to Santos, calling at Brazilian ports both ways. Number of sailings is about fifteen per annum. Fleet, three steamers. Cargo capacity, 2,500 to 3,000 tons each. Can accommodate 60 to 80 first-class and 60 third-class passengers. Freight rate 25 to 35 shillings per ton. Receives state aid.

SUBSIDIES.

The amount asked for by the minister of agriculture for the year 1890 is 3,061,240 milreis, divided as follows, per annum.

	Milreis.*
Companhia Nacionale de Navegacao por Vapor	651,000
Companhia Bahiana	155,000
Companhia Pernambucana	140,000
Companhia Maranhense	170,000
Companhia Brazilina	583,200
Amazon Steam-ship Navigation Company	468,000
Companhia Rio Parahyba	68,000
Companhia Itaperuvien	12,090
Companhia Lower San Francisco	40,000
Empuza de Navegacao dos Rios Araguay, etc	125,000
Foreign service:	
American flag, United States and Brazil Mail Steam-ship Company	190,000
Brazilian flag, Companhia Transatlantica	300,000
Total	2,911,090

The balance, 150,150 milreis being for different smaller services.

SUBSIDIZED STEAM-SHIP LINES.

Royal Mail Company, British Government, £96,000; Pacific Steam-ship Navigation Company, Chili, uncertain; Shaw, Saville, Albion Company, New Zealand, uncertain; New Zealand Shipping Company, New Zealand, uncertain; North German Lloyds, German, uncertain; Navigazione Generale, Italian, uncertain; Austrian Hungarian Lloyds, Austrian, uncertain; Messageries Maritimes, French, 18,000,000 francs; Chargeurs Reunis, French, uncertain; † Societe Generale, French, uncertain; † Companhia Transatlantica, Brazilian, 300,000 milreis; United States and Brazil Mail Steam-ship Company, Brazilian, 190,000 milreis.

TRAMP STEAMERS.

In addition to the regular lines mentioned, this port is very much frequented by vast numbers of steamers arriving from many ports of the world, principally from Europe; recently quite a number have been coming with cargo from New York and Baltimore. These steamers are vulgarly known as "tramps," and all are without exception under the English flag.

I may here mention that the expenses of discharging cargo in this port, which is paid by steamers, amounts to 10 shillings upwards per ton.

Rates on coffee, which is about the only article shipped hence to the United States, will average about 25 cents per bag of 60 kilograms weight, and the expenses of loading same (for steamer's account) is about 14 cents per bag, this quite apart from charges in United States.

EXPORT DUTIES.

The treasury estimate of revenue to be derived from export taxation for 1890 is fixed at 15,000,000 milreis.

Sugar is about the only article of export from Brazil that does not pay the General Government export duty; the provinces still continue collecting the provincial export duty on sugar, that of Rio de Janeiro being 4 per cent. on the custom-house valuation.

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* 1 milreis = 54.6 cents.

† Are paid on the bounty system.

IMPORTS FROM AND EXPORTS TO THE UNITED STATES.

Exports from Rio de Janeiro to the United States during the crop year July 1, 1888, to June 30, 1889: Coffee, 2,344,796 bags; by American steamers, 119,748 bags; by American sail craft, 221,444; total by American steam and sail, 341,192 bags. The balance was carried by foreign flags—2,003,604 bags—showing 14.5 per cent. per American flag. Coffee is about the only article worth mention exported from Rio de Janeiro.

Imports from the United States via Europe are now about 3 per cent.

MISCELLANEOUS.

All steamers leaving Brazilian ports are obliged by law to take mails; pay for same is 500 reis per kilogram of letters.

Subsidized lines are not allowed any extras.

Steamers have to receive and deliver mails at the post-office at their expense.

REPUBLIC OF COLOMBIA.

REPORT BY VICE-CONSUL WHELPLEY, OF BARRANQUILLA.

I have the honor to submit the inclosed report in regard to steam-ship connections with this port in tabular form. Without reference to occasional tramp steamers there are seven regular lines, as follows:

British—Atlas, 8 steam-ships, 15,523 tons; Royal Mail, 15 steam-ships, 38,479 tons; West India-Pacific, 16 steam-ships, 38,070 tons; Harrison line, 20 steam-ships, 22,614 tons; total, 59 steamers of 114,686 tons.

French—Compagnie Générale Transatlantique, 17 steam-ships of 57,300 tons.

German—Hamburg-American, 13 ships of 18,532 tons.

Spanish—Transatlantic, 10 ships of 15,653 tons.

Seven of the Spanish line are averaged at 1,500 tons each, the agent here not knowing the exact tonnage.

Herewith find details as to the above lines, giving names and tonnage of steamers, routes, passenger rates, freights, etc.

STEAM-SHIP LINES TO AND FROM BARRANQUILLA.*

1.—*Atlas Line* (*British*).

Home port, Liverpool; passenger capacity, fifty to seventy-five; from New York, via Hayti, every fourteen days; return, via Port Limoso, to New York.

Steamers.	Tonnage.	Passage via New York.	
		To—	Amount.
Adirondack	2,350		
Alene	2,104	Liverpool	$155
Alvo	2,009	London	144
Ailse	1,950	Glasgow	148
Athos	1,943	Havre	178
Alps	1,750	Hamburg	178
Andes	1,750	Bremen	178
Alvena	1,667	New York	75
Total	15,523		

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* These tables were re-arranged in the Department.

Atlas Line freights.

Articles.		To New York.	To Europe via New York, per ton.		
			English, German, and Dutch ports.	Havre and Bordeaux.	Genoa and Marseilles.
			Shillings.	*Shillings.*	*Shillings.*
Coffee	per cwt	$0.50	45	50	65
Cacao	do	.60	55	60	70
Cocoa-nuts	per M	6.00	....	....	....
Bark	per bale	1.00	90	120	132
Balsam	per pound	.02	....	....	....
Divi-divi	per ton	12.00	90	110	120
Fustic	do	5.00	45	....	....
Rubber	per pound	.10¾	60	75	80
Hides	each	.15	120	130	140
Skins	per pound	.00¾	....	....	....
Ivory-nuts	per ton	5.00	....	....	....
Plants	per cubic foot	.20	....	....	....
Sarsaparilla	do	.20	....	....	....
Horse-hair	per pound	.00¾	....	....	....
Minerals	per ton	4.00	....	....	....
Specie	per cwt	.00¾	....	....	....
Tobacco		....	80	130	132

2.—*Royal Mail Packet Company* (*British*).

To and from Europe direct; passenger capacity, one hundred to two hundred and fifty. Paid by the British Government $109,943.11 for mail services during the year 1888; twice each month to and from Plymouth, Cherbourg, and Southampton, via West India ports, Curaçoa, and Colon, touching at Sabanilla. Passage, first class, £43 10*s*., £40, and £30; second class, £20; third class, £15.

Steamers.	Tonnage.	Freight, per ton, to Europe, direct.		
		Articles.	London, Liverpool, Hamburg, Bremen, and Havre.	Marseilles and Bordeaux.
Orinoco	3,910	Coffee	£2.10	£4.00
Para	3,805	Cacao	3.10	3.10
Don	3,805	Bark	3.10	4.10
Medway	3,687	Balsam	3.00	4.10
Moselle	3,298	Divi-divi	3.10	4.00
Nile	3,093	Fustic	2.00	3.00
Avon	2,225	Rubber	4.00	4.00
Eden	2,144	Hides	6.05	7.10
Solent	1,908	Skins	6.10	6.10
Dee	1,858	Ivory-nuts	2.00	2.10
Essequibo	1,831	Sarsaparilla	5.00	5.10
Severn	1,736	Horse-hair	4.00	4.10
Larne	1,670	Minerals	2.05	2.15
Derwent	2,471	Specie	⅛ per cent.	....
Belize	1,038	Tobacco	....	6.00
Total	38,479			

3.—*West India and Pacific Line* (*British*).

Home port, Liverpool; passenger capacity, seventy to one hundred and fifty; four steamers monthly from Liverpool, via Barbadoes, Trinidad, La Guayra, Puerto Cabello, Curaçoa, to Sabanilla, returning via Carthagena, Colon, and New Orleans to Liverpool. Passenger rates: To Europe, via New Orleans, £25 to £30; to New Orleans, $60. Freights: To Europe, same as Royal Mail Packet Company; to New Orleans, 10 per cent. less than the Atlas line to New York.

Steamers.	Tonnage.	Steamers.	Tonnage.
Darien	3,362	Jamaican	2,009
Texan	3,257	Caribbean	1,852
Floridian	3,257	American	1,838
Yucatan	2,816	Californian	1,831
Bernard Hall	2,678	West Indian	1,804
Australian	2,498	Venezuelan	1,690
Haytien	2,336	Cuban	1,333
Andean	2,147	Total	38,070
Wm. Cliff	2,362		

4.—*Harrison Line* (*British*).

Home port, Liverpool; passenger capacity, thirty to sixty; once a month from Liverpool, via same ports as the West India and Pacific line, to Sabanilla, returning to Europe via Port Limon, Greytown, and Belize, or New Orleans. Passenger rates, same as the West India and Pacific Company. Freights, same as Royal Mail Packet Company.

Steamers.	Tonnage.	Steamers.	Tonnage.
Actor	1,073	Statesman	1,219
Architect	1,238	Sculptor	839
Astronomer		Mariner	917
Author	1,835	Legislator	1,374
Counsellor	1,455	Professor	1,696
Discoverer	1,455	Historian	1,201
Editor	1,080	Explorer	1,297
Electrician		Scholar	1,065
Engineer	1,742	Inventor	1,535
Merchant	895	Total	*22,614
Warrior	700		

*Tonnage of two steamers omitted.

5.—*Hamburg-American Line* (*German*).

Home port, Hamburg; passenger capacity, thirty to sixty; from Hamburg, twice a month, via Havre, St. Thomas, San Domingo, La Guayra, Curaçoa, Sabanilla, and Carthagena, returning to Hamburg via same route. Passenger rates: To Havre and Hamburg, $75; to Curaçoa, $10; to St. Thomas and Porto Rico, $24. Freight rates, same as Harrison, and West India Pacific Company.

Steamers.	Tonnage.	Steamers.	Tonnage.
Albingia	1,365	Halsatia	1,397
Allemania	1,400	Hungaria	1,516
Ascania	1,487	Saxonia	1,203
Bavaria	1,482	Teutonia	1,280
Bonissa	1,325	Thuringia	1,479
Colonia	1,479	Total	18,532
Francia	1,590		
Flandria	1,529		

6.—*Transatlantic Line* (*Spanish*).

Home port, Barcelona; passenger capacity, fifty to seventy-five; from Cadiz, thirtieth of each month, via Havana, West Indies, Colon, and Sabanilla, returning via Sabanilla, New York, and Havana. Freight and passenger rates, same as Atlas Line.

Steamers: *Baldonias Iglesias* (1,822 tons), *Habana*, *Panama*, *Mendez Nuñez*, *Ville Verdè* (1,831 tons), *San Domingo*, *Espana*, *San Francisco*, *San Augustine*, *Corunna*. The tonnage of only two steamers could be ascertained.

7.—*Compagnie Gènèral Transatlantique* (*French*).

Passenger capacity, one hundred to two hundred and fifty. Freights, same as Royal Mail Packet Company. Seventeen steamers of a total tonnage of 57,300 tons.*

S. M. WHELPLEY,
Vice-Consul.

UNITED STATES CONSULATE,
Barranquilla, August 15, 1889.

TRINIDAD STEAM-SHIP SUBSIDIES.

REPORT BY CONSUL SAWYER.

(1) The vessels of the Royal Mail Steam-Packet Company, under contract to carry Her Majesty's mails, left Southampton Thursday December 27, 1888, and every alternate Thursday thereafter, arriving at Trinidad on Friday, January 11, 1889, and every alternate Friday thereafter. The homeward ships leave Trinidad for Europe and the West Indies on Saturday January 5, 1889, and every alternate Saturday thereafter, arriving in England on the Saturday week afterwards; two steamers arriving at Trinidad monthly.

This company's extra steamers not under contract left Southampton December 26, 1888, due here January 12, 1889, arriving every four weeks hereafter via Barbadoes, St. Lucia, St. Vincent, Grenada, Trinidad, as far as Colon, returning home in four weeks.

(2) The French mail steamers from Havre via Martinique and Guadeloupe arrive at Trinidad about the 11th of each month, proceeding to Caru-

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* For particulars, see report by Consul-General Rathbone, of Paris, page 38.

pano, La Guayra, Puerto Cabello, Savanilla, and Colon, returning on or about the 28th or 29th and leaving directly for Martinique, etc., and Havre. The French intercolonial steamers from Cayenne call on the 25th of each month, leaving for Cayenne on the 25th and returning on the 7th or 8th of the following month on their way to Martinique, etc.

(3) Scrutton's direct line of steamers arrives here from London about twice a month, touching at Barbadoes, Tobago, and sometimes direct from London.

(4) The West Indian Pacific line of steamers from Liverpool (England), arriving every Tuesday, leaves Trinidad weekly for Venezuelan ports.

(5) A Dutch line of steamers plies between Amsterdam and Paramaribo direct, thence to Demerara and Trinidad, returning by Venezuelan ports, Port-au-Prince (Hayti), and New York, to Havre and Amsterdam; due here on 6th, leaving same day.

(6) Harrison line of steamers from Liverpool, arriving monthly (sometimes two steamers), leave same day for Venezuelan ports, Savanilla, Colon, New Orleans, Central America, and San Francisco. A Glasgow line of steamers runs monthly between Glasgow, Trinidad, and Demerara. No fixed dates for arrival or departure.

(7) Our communications with the United States are kept up by steamers belonging to Messrs. A. E. Outerbridge & Co., and Messrs. Seaycraft & Co., of New York, arriving here every three weeks from New York and returning via Barbadoes and other West India Islands.

(8) The Trinidad direct line to New York leave fortnightly.

(9) The Orinoco line of steamers between Trinidad and Bolivia (Venezuela), leaving on the 7th and 22d and returning on the 1st and 17th of each month.

(10) The Oriental line of steamers to La Guayra and intermediate ports in Venezuela leave fortnightly.

(11) The New York and Bermuda Company's line between Trinidad and Venezuelan ports leave fortnightly.

SUBSIDIES.

The Trinidad direct line to New York receive from Trinidad Government £3,000 ($14,400) per annum.

The Royal Mail Steam-Packet Company receive for conveying Her Majesty's mail £90,000 ($432,000). The Dutch steamers are under contract with the Netherlands Government for the conveyance of the mails.

RATE OF FREIGHT BETWEEN TRINIDAD AND NEW YORK.

Sugar	per 100 pounds...	$0.25
Molasses	per pun. of 110 gallons...	3.50
Cocoa and coffee	per bag...	.60
Bitters	per box...	.30
Hides:		
Green	per 100 pounds...	.60
Dry	per cubic foot...	.25

Cocoa-nuts:		
In husks	per 1000	$9.00
Husked	per bag of 100 pounds	.60
Asphalt:		
Raw	per ton of 20 cwt	4.50
Pure (barrels)	do	3.50
Measurement goods	per cubic foot	.25
Specie and bullion		1 per cent.

Cocoa, 55 shillings per ton to London, 40 shillings per ton to Havre; sugar in hogsheads to London according to agreement; in bags, to United States, 21 cents per 100 pounds; in bags to London, 30 shillings per ton. There is no fixed rate for sugar.

By sailing vessels freight is 33⅓ per cent. cheaper than the above.

MOSES H. SAWYER,
Consul.

UNITED STATES CONSULATE,
Trinidad and Tobago, August 24, 1889.

DENMARK.

REPORT BY CONSUL RYDER, OF COPENHAGEN.

I have the honor to present herewith a report on the steam service between the Port of Esbjerg, in Jutland, and England. The desire of the Danish Government to meet, as far as possible, the demands made by the exporters of agricultural produce to England for cheaper and greater facilities of transport by this route has led to the conclusion of a contract between the home minister and the Danish Union Steam Shipping Company for this purpose.

In 1888 an arrangement had already been made between the State railways and this company for the carriage of such products from Esbjerg to London via the Port of Parkeston, at the following through rates from Esbjerg, viz:

		s.	d.
For horses	per head	38	6
For cattle of 1,050 pounds or above	do	21	6
For cattle of 750 to 1,050 pounds	do	19	6
For cattle of 450 to 750 pounds	do	16	0
For cattle under 450 pounds	do	7	9
For sheep and lambs	do	3	6
For swine	do	5	2
For butter	per ton	32	9
For pork and beef:			
Salt	do	25	3
Fresh	do	33	6
For eggs	do	41	0
For yeast	do	40	9
For fish	do	25*s.* to 32	6

Under the power reserved by the home minister in the new contract, a reduction will now be made of 5 shillings per ton on the above rates for butter, pork and beef, eggs, yeast, and fish; the company receiving in compensation, as stipulated by section 9 of the contract, an extra subvention from the Government. No reduction has been made for live stock. Seeing that these were sensibly lowered under the arrangment of last year, and as the rates of transport by the State railways have also been reduced, these collective reductions may be said to be considerable and will aid the shippers in the trade competition with their foreign rivals.

The terms of the contract are as follows, viz:

SECTION 1. The Union Steam Shipping Company binds itself to maintain three times a week a through communication between Esbjerg and London via Parkeston.

SEC. 2. For the above-mentioned service steamers of not less than 250 net register tons shall be employed, and of suitable draught of water. The steamers to have such horse-power that under ordinary circumstances the passage may be made in less than thirty-eight hours. The ships to be provided with suitable accommodation for ten to twenty first-class passengers. They should also have storage room of proper dimensions and in such number that goods likely to cause damage to others can be kept separate, more especially must butter and pork be kept apart from fish and such like goods, as well as from live stock. The compartments set apart for butter, fresh pork, and beef shall be kept cool, so that the temperature in these, six hours from the ship's sailing, shall be brought down to 10° C. at the highest, and this to be placed under such control as the home minister may deem proper.

SEC. 3. It will rest with the steam company if they will convey by the same boats horses, cattle, sheep, and swine. The steamers employed in the existing trade with Parkeston must, however, be fitted up in such manner as to be able, when called for, to convey live animals, more especially cattle and sheep.

SEC. 4. The steam company binds itself to receive for conveyance by the outgoing ships live stock, when these are at hand on the steamer's wharf ready for shipment four hours before the advertised time of departure, but, however, only at such times when the ship is bound to receive live stock; fresh goods (butter, fresh beef, and pork, easily perishable kinds of fruit and garden produce, etc.), when these are at hand two hours before the time of sailing; other goods, such as salt pork, eggs, etc., when these are ready for shipment four hours before the advertised hour of departure, and all this in so far as there may be sufficient vacant room. The company to take charge of the shipping of the live stock and goods on board the steamers at Esbjerg, whether they may be delivered on the steamer's wharf or be laden in the railway trucks on the harbor rails at the quay-side.

SEC. 5. The days of sailing from Esbjerg will remain the same as in 1888, namely, on the Tuesday and Wednesday afternoons and Saturday at noon. The fixed hour of departure to be duly advertised in the official gazette.

SEC. 6. Just as the company binds itself to attend to the proper custody and care of goods, so do they equally bind themselves to provide proper care and attendance, as also foddering and watering for the animals.

SEC. 7. During the passage to England, so that no delay may thereby be occasioned, it is forbidden to render assistance to other ships, or to make any attempts for the salvage of these or their cargoes, unless it should be for the saving of human life or affording aid to crews in distress.

SEC. 8. At all times when other Danish harbors may be closed by the state of the ice in the Cattegat, the company binds itself, as far as lays in their power, to meet the increased calls that under such circumstances may be made on the service between Esbjerg and England.

SEC. 9. The minister reserves the right of reducing the rates of freight stipulated under the agreement of 1888, on payment of a further yearly subvention to the company of 15,000 kroners ($4,020) for every shilling of reduction per ton on the freight of the goods mentioned, which amount shall be paid in twelve monthly installments.

SEC. 10. As compensation for the conditions imposed by the contract on the shipping company in the carrying out of the service to Parkeston the home minster binds himself—

(*a*) To refund to the company all wharfage dues levied at Esbjerg in the course of the year on all goods and live stock shipped by their steamers to Parkeston, and of which mention is made in the contract. The payments to be made in the month of April for the foregoing financial year.

(*b*) To pay to the company an annual subvention of 50,000 kroners ($13,400), the same to be paid in twelve monthly installments. This subvention, however, to cease whenever the goods carried from Esbjerg to Parkeston of the articles named in the contract shall have reached in the previous going year an amount of 24,000 tons.

SEC. 11. In the monthly settlements with the treasury, which shall take place, at the latest, on the seventh of every succeeding month, the contingent right is reserved of making therefrom the following deductions:

(*a*) The sum of 1,000 kroners ($268) for each of the trips mentioned in section 1 of the contract which has failed to be carried out through neglect on the part of the company or from mishaps to the ships; this, however, to be understood in such manner that no deduction will be made when the non-performance of the service has been due to force of circumstances beyond the control of the company.

(*b*) The sum of 100 kroners ($26.80) for every trip to Parkeston which has employed more than forty-eight hours, and of 500 kroners ($134) for every such trip as has employed more than sixty hours; all, however, in so far as the delay can be laid to the charge of the company.

SEC. 12. Notices of withdrawal from the contract can be given by the minister with a quarter year's notice, and by the company with a notice of three months before the close of a financial year.

A further contract has been closed between the home minister and the same steam company for a weekly service from Esbjerg to the port of Hull with boats duly fitted up for the conveyance of seven hundred live swine under deck in solidly arranged partitions, and in pens holding not more than twenty-two head in each, at the freight of 3*s*. 6*d*. per head, the company receiving from the Government a subvention of 4,000 kroners ($1,072) per month, together with the refunding of all wharfage dues levied at Esbjerg on the swine, butter, beef and pork, and eggs shipped by their boats; the minister at the same time reserving the right, with fourteen days' notice, to select either of the ports of Sunderland, of Hartlepool, Grimsby, Deptford, Rotterdam, or Antwerp as the port of destination, but, should either of the three last named places be selected, a further payment shall be made by the Government of 1,000 kroners ($268) for the first trip and of 500 kroners ($134) for each of the subsequent trips to either of the three places.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, September 20, 1889.

VENEZUELA.

REPORT BY CONSULAR AGENT ROHL, OF CARACAS.

FROM THE UNITED STATES.

The vessels of the following steam-ship lines touch at the ports of Venezuela from the United States:

Red "D" line, about every twelve days from New York; sail under the United States flag. This is the only line carrying the American flag.

Compañia Transatlantica Española, once a month from New York via Havana; sail under the Spanish flag. Head office of the company, Barcelona, Spain.

Koninklijke West-Indische Maildieust, once a month from New York via Hayti; sail under the Dutch flag. Head office, Amsterdam.

FROM EUROPE.

Compañia Transatlantica Española, once a month from Spain; sail under the Spanish flag.

Koninklijke West-Indische Maildieust, once a month from Amsterdam; sail under the Dutch flag.

Hamburg-American Packet Company, twice a month from Hamburg and Havre; sail under the German flag.

West India and Pacific Steam-ship Company and Harrison line of steam-ships, once a week from Liverpool, the ships of the two companies alternating; sail under the British flag.

Royal Mail Steam-packet Company, once every fortnight from Southampton; sail under the British flag. Head office at London.

Compagnie Générale Transatlantique, three times a month from St. Nazaire, Havre, and Marseilles; once a month a steamer from each of these ports; all ships belonging to this company sail under the French flag. Head offices at Paris.

Of the above-mentioned lines the Compañia Transatlantica Española, the Koninklijke West-Indische Maildieust, the Royal Mail Steam-packet Company, and the Compagnie Générale Transatlantique receive large subsidies from their respective governments. The Government of Venezuela does not give financial assistance to any steam-ship line, native or foreign.

FREIGHT.

The rates of freight from New York to Venezuela and from European ports to Venezuela are about the same.

EXPORT DUTY.

Under the denomination of *derecho de transito* (transit duty) the Government of Venezuela collects a tax of 5 bolivars (equal to 96 cents) per 100 kilograms gross weight on coffee, cocoa, cotton, and indigo exported.

COINAGE AND CURRENCY.

For want of accurate statistics the total amount of silver and gold coin coined in Venezuela can not be positively stated, but the following figures show the approximate amounts: Gold, about 12,000,000 bolivars*; silver, about 11,500,000 bolivars. There is, besides this, a very large amount of foreign gold coin in circulation. There is no foreign silver in circulation.

The coinage at the Venezuelan mint (a private company working under contract with the Venezuelan Government) has been stopped by order of the Government on account of a disagreement between said Government and that establishment as to the total amount of silver the latter is entitled to coin. According to a law passed by Congress the amount of gold coinage is unlimited, whereas the total amount of silver to be coined shall not exceed 11,098,170 bolivars. The wording of the contract seems to disagree with this law of Congress, and consequently the matter has been carried by the company before the tribunals, where it is still pending.

The monetary unit of Venezuela is the bolivar, equal to 13.6 cents American. The standard is legally single gold, as it is not obligatory to receive more than 500 bolivars silver in every payment, but practically it is double, as silver is generally taken freely at its nominal or face value. There is no premium on gold.

There is no national paper currency in Venezuela. Three private banks in the country enjoy the privilege of issuing bank-notes, but there is no obligation to receive them in payment. As they can, however, at any moment be changed for gold at the banks they circulate freely at par.

CHARLES ROHL,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Caracas, November 24, 1889.

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*A bolivar = 13.6 cents American.

SUPPLEMENT.

HISTORY OF EUROPEAN STEAM-SHIP SUBSIDIES.*

REPORT BY CONSUL CRAIN, OF MILAN.

The Government at Rome, for its guidance in the preparation of measures to aid the Italian commercial marine, has recently caused investigations touching past and present subventions to merchant steam-ship lines by other nations. The data furnished by these researches embrace the history and extent of subsidies as to most European countries, and the scope of the various lines.

FRENCH SUBSIDIES.

The law of August 16, 1879, authorized the minister of the postal and telegraphic department to accord an annual subvention of 1,200,000 francs for a period of fifteen years to steam-ships which should run the following lines: Line from Port Vendres to Algiers; Algiers to Bona; Marseilles to Oran; Port Vendres to Oran; Marseilles to Philippeville; Marseilles–Bona to Tunis; Tunis to Tripoli.

The principal conditions were that a new semi-monthly line should be established between Oran and Tangiers, touching Nemours, Malaga, and Gibraltar, and optionally Melilla; that the service of the aforesaid lines should be weekly going and returning, except for the Marseilles–Algiers and Marseilles–Phillippeville lines, which should be semi-weekly; the ships to be new, or sea-worthy, of not less than 400 tons register for voyages between France and Algiers and of 200 for voyages along the Barbary coast; to be run according to the line, 12, 10, or 9 knots per hour, with a forfeiture of 50 francs per hour for every delay not justified. The act of concession also regulated the mail service, treatment of passengers, transport of merchandise, etc., and exacted 350,000 francs security; it stipulated that the payment of subsidy be monthly, but forbids the company to cede any part of the service to another without the express consent of the minister. The service was assumed by the General Transatlantic Company from July 1, 1880, to June 30, 1885, for an annual subsidy of 493,500 francs.

From February 20, 1858, Mr. Marzion, director of the Union Maritime Company, was the recognized grantee of the transatlantic postal service between France, the United States, and the Antilles, operated by two lines, one from Havre to New York, the other from St. Nazaire to the Antilles and Aspinwall, with subsidiary lines to Guadeloupe, to Mexico, and Caen. Afterwards Mr. Emile Periere (Mr. Marzion having given up the service), under the law of June 7, 1857, accepted in the name of the Transatlantic Company a contract, of which the following are the principal clauses: A concession of a subsidy of 9,300,000 francs per year, for twenty years, reduced, however, by 600,000 francs per year until the actual running of the Mexican line, and with a clause that the twenty years should begin only from the date that all the lines were in operation, Mr. Periere to have the following steamers: Five of 850 horse-power; six of 660 horse-power; five with a total of 875 horse-power; three, each 200 horse-power; one of 150 horse-power; one of 125 horse-power.

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*From CONSULAR REPORTS, No. 30, April, 1883.

Mr. Mallet, in behalf of the Credit Mobelier, guarantied the emission of 32,000 bonds, and 32,000 obligations of the said company.

The Government stipulated not to subsidize any lines between the coast of Newfoundland and the mouth of the Amazon, and that whenever a direct line to New Orleans and Havana should appear feasible, it would first negotiate with the Transatlantic Company, and in case of non-agreement would pay an indemnity, to be fixed by a commission, for damages resulting from the competition. The company bound itself to make a discount of 30 per cent. for the transport of civil, military, and ecclesiastical functionaries, for sailors and soldiers of the colonies; 7 francs per day was agreed upon for the transport and maintenance. The annual distance to be run was fixed at 157,968 marine leagues, divided thus: For the semi-monthly line from Havre to New York, 55,016 leagues; St. Nazaire to Martinique, Martinique to Santa Marta or Cartagena, Santa Marta to Aspinwall, 78,672 leagues. For the monthly line from Martinique to Santiago de Cuba, Santiago de Cuba to Vera Cruz, Vera Cruz to Tampico, Martinique to Cayenne, 27,080 leagues. The average speed to be 11½ knots for the New York line, 10 for the Antilles and Aspinwall, and 8 for the others.

At the time of the expedition to Mexico there was established by convention of February 17, 1862, a monthly voyage from St. Nazaire to Vera Cruz, with a subvention of 310,000 francs going and returning, the company being permitted to make only a monthly voyage between Havre and Mexico, the subsidy being reduced, however, by 1,669,220 francs.

By convention of April 17, 1865, the itinerary of the lines to the Antilles was modified as follows: First line from St. Nazaire to Martinique, Martinique to Santa Marta or Cartagena, Santa Marta to Aspinwall; second line from St. Nazaire to St. Thomas, St. Thomas to Havana, Havana to Vera Cruz.

The following five services were established: The first from Fort de France to Santa Lucia, Santa Lucia to St. Vincent, St. Vincent to Granada, Granada to Port of Spain, Port of Spain to Demerara, Demerara to Surinam, Surinam to Cayenne; the second from Fort de France to St. Pierre, St. Pierre to Point à Pitre, Point à Pitre to Basseterre, Basseterre to St. Thomas; the third from Fort de France to St. Pierre, St. Pierre to Point à Pitre, Point à Pitre to Basseterre; the fourth from St. Thomas to Porto Rico, Porto Rice to Hayti, Hayti to Santiago de Cuba, Santiago de Cuba to Kingston; the fifth from Vera Cruz to Tampico, Tampico to Matamoros.

On account of these onerous modifications of lines the Government abandoned the penalty established by article 38 of the contract for insufficiency of speed on the New York line. A convention of March 16, 1866, established a monthly line for New Orleans, in communication at Havana with that from St. Nazaire to Mexico, and one between Fort de France (Martinique) and Puerto Cabello (Venezuela), with call at La Guayra. For these two lines the Government accorded a new subvention of 131,156 francs for the first and of 64,017 for the second.

A convention of February 16, 1868, between the French Government and the Transatlantic Company established two new lines, the first monthly from Panama to Valparaiso, and *vice versa*, with the following itinerary: From Panama to Guayaquil, Guayaquil to Payta, Payta to Lambayeque, Lambayeque to Huanchaco, Huanchaco to Callao, Callao to Chinchas, Chinchas to Islay, Islay to Arica, Arica to Iquique, Iquique to Cobija, Cobija to Caldera, Caldera to Huasco, Huasco to Coquimbo, Coquimbo to Valparaiso; the second, monthly, from St. Thomas to Colon, touching at Porto Rico, Cuba, and Jamaica.

The subsidy was 750,000 francs per year, the Government guarantied 5 per cent. interest, authorized a capital of 60,000,000 francs, and the issuing of bonds, stipulating, however, that the maximum of interest to be paid by the Government should not exceed 2,000,000 francs, and reserving one-fourth of all profits realized by the company over and above 8 per cent. The State advanced 4,000,000 francs, re-imbursable, without interest, in fifteen yearly installments. The company bound themselves to put on three new steamers, built in France, of a speed of 12 knots per hour and 450 horse-power, and to keep always at Martinique in reserve, for intercolonial service, a steamer of at least 150 horse-power.

By convention of December 16, 1873, the subsidy was continued, the Pacific line suppressed; but in exchange nine steamers of a minimum force of 850 horse-power and a speed of 12½ knots per hour was required, and also two additional monthly round voyages in the six months from April to November between Havre and New York.

Mr. G. B. Beccari, in a pamphlet published at Rome in 1882, gives the following table of subventions accorded by the French Government to the General Transatlantic Company:

Point of departure and arrival.	Distance in miles going and returning.	Distance run in miles.	Division of subsidies.	Number of voyages.
			Francs.	
Havre	6,348	165,048	3,170,000	26
New York				
St. Nazaire	11,286	189,540	3,451,156	12
Vera Cruz				
Lines annexed	4,509	....	....	....
St. Nazaire	9,834	162,288	3,074,017	22
Aspinwall				
Lines annexed				
Total	....	516,876	9,695,173	....

MESSAGERIES MARITIMES—MEDITERRANEAN AND BLACK SEA LINES.

The convention stipulated between the Government and the Messageries Company, dated February 28, 1851, was for a term of twenty years. The annual subvention was fixed at 3,000,000 francs, and after ten years was to be diminished 100,000 francs per year. By convention of January, 1852, the subsidy was made 3,076,091 francs, and by a subsequent one of May 20, 1857, which, by ministerial decree of June 2, 1864, was extended to July 22, 1888, the amount of the subsidy was raised to 4,776,118.40 francs for a yearly navigation of 188,300 marine leagues, divided into nine different lines. First line, Marseilles to Malta, touching at Genoa, Leghorn, Civita Vecchia, Naples, Messina, and Piræus, with fifty-two voyages per year, including return; second line, Marseilles–Alexandria, touching Malta, with twenty-six round voyages; third line, Alexandria–Smyrna, touching Jaffa, Beyrout, Tripoli, Latakea, Alexandretta, Messina, Rhodes, with twenty-six round voyages per year; fourth line, Marseilles–Smyrna, touching Malta and Syra, with twenty-six round voyages; fifth line, Piræus–Smyrna, touching Syra, with twenty-six round voyages; sixth line, Smyrna–Constantinople, touching Mitylene, Dardanelles, Gallipoli, with fifty-two round voyages; seventh line, Marseilles–Constantinople, touching Messina and Piræus, with fifty-two round voyages per year; eighth line, Constantinople–Braila, touching Galatz, with thirty-six voyages per annum; ninth line, Constantinople–Trebizond, with thirty-six voyages per year.

In the contract it was stipulated that the company have at least fifteen steamers, six of 220 horse-power or over, and nine of 160. The rules for the postal service and sustenance of passengers are nearly identical with those above mentioned for the Transatlantic Company.

There is, however, a clause that in case of war the Government reserves the right to take possession of the company's material, paying 5 per cent. interest upon the approximate capital, and re-imbursing the appraised losses and damages. Also, in case of suspension of a weekly voyage between Marseilles and Constantinople, the company will be bound to inaugurate a military and postal service between Algiers, Bona, and Oran, transporting gratuitously, besides letters and funds, every year 20,000 tons of material and 30,000 passengers of the fourth class, including maintenance.

MESSAGERIES MARITIMES LINE OF BRAZIL–RIO DE LA PLATA.

The convention of September 16, 1857, for the postal service for Brazil for a term of twenty years, went in force in 1860, was extended to 1884, and accorded a yearly subsidy of 4,700,000 francs to the Messageries, with the obligation to make twice a month alternately from Bordeaux and from Marseilles the following voyages: First, from Bordeaux to Rio de Janeiro, touching Goree, Pernambuco, and Bahia; second, from Marseilles to Rio de Janeiro, touching Goree, Pernambuco, and Bahia; third, from Rio de Janeiro to Buenos Ayres, touching Montevideo—that is, a total distance of 101,232 marine leagues. However, the line from Marseilles was suppressed by a succeeding convention of April 22, 1861, and the subsidy reduced to 2,306,172 francs, the company to have ten steamers, seven thereof to be at least of 450 horse-power, and three of 200, with an average speed of 9 knots per hour for the line to Brazil, and of 8 for the subsidiary from Brazil to La Plata. For passengers for the service and for transports, etc., are adopted the same rules as for the other lines, with express stipulation that the contract is not to be assigned to others without the written consent of the minister of finance.

MESSAGERIES MARITIMES—INDO-CHINA LINE.

April 22, 1861, there was stipulated an agreement between the French Government and the Messageries, granting to the company for twenty-one years a subvention of 7,500,000 francs for the first three years, 7,000,000 for the second three, 6,000,000 for other three, 6,500,000 for other three, 5,000,000 for other six, and 5,000,000 for the last six years. The service embraces one principal monthly line, in communication with lines of the Mediterranean, and five subsidiary lines. The principal leaves Suez for Saigon, touching Aden, Point de Galles, Penang, and Singapore. Of the subsidiaries, all monthly, the first goes from Aden to the island of Réunion and Mauritius; the second from Point de Galles and Chandernagore, touching Pondicherry, Madras, and Calcutta; the third from Singapore to Batavia; the fourth from Saigon to Manila; the fifth from Saigon to Shanghai, touching Hong-Kong.

By convention of June 2, 1864, the line from Saigon to Manila was suppressed, and in its place was substituted another, monthly, from Shanghai to Yokohama, and the line from Mauritius to Aden was extended to Suez, with an increase of subsidy to the first of 341,301 francs yearly, and to the second of 256,631 francs yearly. The total yearly distance to be run was fixed at 112,194 marine leagues.

By a convention of April 6, 1868, the company engaged to prolong the Suez line to Hong-Kong; to take Hong-Kong instead of Saigon as the point of departure for the subsidiary line to Shanghai; to establish a direct line from Hong-Kong to Yokohama, suppressing that from Shanghai to Yokohama; to make twenty-six voyages instead of twelve on the principal line between Suez, Hong-Kong, Yokohama, and that of Hong-Kong, Shanghai; to increase by one voyage per year on the subsidiary lines. For this increase of about 90,812 marine leagues in distance there was conceded an average subvention of 37.50 francs for every league, and per year 3,405,450 francs, payable monthly.

MESSAGERIES MARITIMES—AUSTRALIAN LINE.

A convention made June 25, 1881, which went into effect in October, 1882, stipulated for a subvention of 3,297,216 francs per year for fifteen years, for a yearly distance to be run of 103,038, or 32 francs per league. The conditions imposed on the company are not yet made public, except that a speed of over 11 knots per hour is established. The account current of the Messageries Maritimes Company for the years 1879 and 1880 presents the following results:

Description.	1879.	1880.
	Francs.	*Francs.*
Income received for passengers, freight, etc	31,603,566.00	32,951,719.00
By Government subvention	14,057,392.00	14,097,396.00
Total	45,660,958.00	47,049,115.00
Expenses of every kind, including interest on bonds	41,144,353.83	42,522,048.83
Profits	4,516,604.17	4,527,066.17

The company had in 1880 fifty-six steamers with a total of 24,270 horse-power, and for the greater part of great capacity. The distances run in that year make a total of 1,781,058 miles, of which the obligatory postal service was 1,401,549⅓ miles; optional service, not periodical, 325,149⅔ miles; for service of particular urgency, 54,359 miles.

It should be observed that under the law of January 30, 1881, granting premiums for construction and navigation, all the steam-ship companies having postal subventions are excluded from benefits.

In the budget of the minister of finance at this moment under discussion in the French Chambers the subventions figure as follows:

	Francs.
Line between the Continent and Corsica	375,000
Lines of the Mediterranean, Brazil, and La Plata	4,382,263
Lines of New York and Antilles	9,958,606
Indo-China line	8,573,024
Algiers line	880,000
Calais and Dover line	100,000
Total	24,268,892

AUSTRO-HUNGARIAN SUBSIDIES.

The postal and navigation convention which regulates the service of the Austro-Hungarian Lloyd, and the Government subsidy accorded to that steam navigation company, bears date June 26, 1878, and is for a term of ten years commencing July 1, 1878.

The indemnity is fixed by article 2 of the convention, in the following proportions:

	Florins.
For the Constantinople–Varna line	4.00
For the Trieste–Alexandria, Trieste–Constantinople, Trieste–Bombay, Fiume–Liverpool, Trieste–Calcutta	1.80
For the Singapore line	2.50
For other courses	1.50

However, it is established that the subsidy shall not exceed 2,000,000 Austrian florins.

The lines and speed are indicated in the annexed table:

Courses.	Number of voyages yearly.	Number of maritime leagues for each round course.
A.—*Course with speed of 10 knots per hour.*		
Constantinople, Varna, and return	104	290
B.—*Course with speed of 9 knots.*		
Trieste (Fiume), Corfu, Alexandria, and back	52	2,402
Trieste, Corfu, Syria, Constantinople, and back	52	2,356
C.—*Course with speed of 8 knots.*		
Trieste, Pola, Dalmatia, Durazzo, and back	52	1,037
Trieste, Pola, Dalmatia, Albania, Prevera, and back	52	1,488
Trieste, Pola, Cattaro, and back	52	825
Fiume, Lussin, Zara, Cattaro, and back	26	705
Fiume, Lussin, Zara, Cattaro, Albania, Patras, and back	26	1,369
Trieste, Fiume, and back	52	272
Fiume, Trieste, and back	52	272
Fiume, Segna, Zara, and return	52	252
Fiume, Zara, Ancona, and back	26	293
Trieste, Fiume, Corfu, Syria, Smyrna, and back	52	2,280
Trieste, Patras, Piræus, Volo, Salonica, Constantinople, and return	26	3,306
Constantinople, Kustendjc, Galatz, and back	40	858
Constantinople, Trebizond, and return	12	1,047
Constantinople, Smyrna, Cyprus, Beyrout, Port Said, Alexandria, and return	26	2,704
Alexandria, Port Said, and back	26	320
Piræus, Syria, and back	104	156
Syria, Candia, and back	52	319
Fiume, Ancona, Bari, Messina, Candia, Lisbon, Liverpool, and back	18	6,000
Trieste, Ceylon, Calcutta, and back	6	12,260
Trieste, Aden, Bombay, Ceylon, Singapore, and return	6	13,750
Trieste, Bombay, and return	3	8,680

The Lloyd steamers have these privileges:

(1) Are exempt from payment of tonnage duties.

(2) Can take cargoes at night.

(3) Can embark health officers to abbreviate quarantine.

(4) have the right in national ports of most commodious place to load and unload.

(5) Every three months are re-imbursed the taxes paid in making the passage of Suez Canal.

The Lloyd Company, on their part, are bound—

(1) To furnish themselves with 28,000 tons of coal per year from the Austro-Hungarian mines; always, however, that the price shall not exceed that of English coal, on the hypothesis that the heating power of national coal is to that of English as 85 to 100.

(2) To accord gratuitous passage to the employés and dependents of the minister of foreign affairs.

(3) The agency of the company must be filled abroad, where permitted, by postal officials furnishing security for good conduct.

(4) The Lloyd steamers receive gratuitously the mails, and are subjected to fines for delays, infractions—fines which vary from 15 to 120 florins.

(5) They are obliged to receive aboard the sailors, prisoners, and the indigent who are consigned to them by the imperial and royal consuls.

(6) To acquire steam-ships from abroad the consent of the minister of foreign affairs is necessary.

(7) The steamers must have an average capacity of 1,200 tons cargo, or about 850 register.

The formation of this old and powerful company dates back to 1833, but it introduced steamers only in 1836, making the service between Trieste and the ports of the Adriatic, Mediterranean, and Black Sea. Until 1865 its capital was 3,000,000 florins. On September 14, 1865, it was increased to 12,600,000, divided into 24,000 bonds of 525 florins each. In its origin the company was promoted by the city of Trieste, which guarantied the interest upon the capital. Afterwards the Austrian Government gave it its protection. To form a clear idea of the importance of the operations of the company it will be sufficient to examine the following table, showing the service performed in 1881:

Lines.	Number of voyages.	Miles run.	Number of passengers.	Moneys received in florins.	Weight of merchandise in quintals.	Number of head of beasts.
Of the Levant	303	619,090	94,057	43,795,014	2,102,898	6,514
Of India	18	262,167	5,868	524,271	513,064	673
Of the Red Sea	1	4,115	1,844	111,678	6,691	....
The Danube and Black Sea	241	158,394	44,544	10,237,117	1,110,189	8,954
The Archipelago	152	33,649	7,198	2,316,705	58,482	6
The Adriatic coast	684	314,750	120,425	47,047,554	856,186	912
Casual	166	218,720	19,632	1,059,486	418,006	2,665
Total in 1881	1,565	1,610,885	293,568	105,091,825	5,065,516	19,725

The company's fleet was composed on December 31, 1881, of 74 steamers, of a total tonnage of 88,224 and a total horse-power of 17,930. Their original cost was 68,988,125 francs, but by reason of depreciation they figure in the company's balance-sheet at 30,101,500 francs. At the above date there were in the course of construction four other steamers of heavy tonnage. The service in 1881 yielded a net profit of 5,438,870 francs.

The Lloyd's is the only company subventioned by the imperial Government.

The Company Adria, whose principal office is at Fiume, receives from the Government of Hungary a subvention of 150,000 florins per year, under a contract made with the Hungarian minister of agriculture, industry, and commerce Januaty 31, 1882. Its capital is 12,000,000 florins. The company under the contract is bound to make, from January 1, 1882, to December 31, 1891, each year, at least one hundred and fifty voyages between Fiume and the ports of western Europe, viz: Every month two voyages from Fiume to Liverpool and Liverpool to Fiume. Every month one voyage from Fiume to London or Hull or Leith; London, Hull, or Leith to Fiume;

Fiume to Bordeaux; Fiume to Marseilles; Marseilles to Fiume; Fiume to Glasgow, and Glasgow to Fiume.

The company binds itself to maintain regular communications with Havre, Rouen, with the Irish ports, and such other ports of western Europe as shall be designated by the minister, provided they are assured at least half a cargo at current rate of freights for steamers in the Adriatic. Such voyages will be made independently of the one hundred and fifty above mentioned. However, the company is not bound to make more than two hundred voyages per year. Nevertheless the company can be compelled by the minister to make additional voyages for the ports of western Europe, provided they are assured half a cargo at current freights and with a subvention supplementary of 600 florins per voyage. The company's steamers must have an average of 800 tons register; the freights from and to Fiume must not be higher than those of the company from and to other North Adriatic ports. A fine of 500 florins is established for every delay in departure or arrival not justified. They are to receive and transport at their own expense sailors from the maritime academy of Fiume, but not more than two on any one steamer. The company are to have for the service of 1882 five steamers, with a total of 4,000 tonnage, and are to add a new one each year, of 800 tons, until they own twelve. The Hungarian Government is to give preference to the Adria Company for such new voyages to the west as it may see fit to establish, as well during the present convention as after its expiration.

SPANISH SUBSIDIES.

For postal subventions they have in Spain the auction system. There are several contracts of different dates, which, on an average, run eight years. The first is for the steam service between Cadiz, Santa Cruz of Teneriffe, and Palmas of the Great Canaries. The subsidy can not be more than 248,840 francs per year. The voyage going must be done within sixty-eight hours; returning, within seventy-four. The average speed must be from 11 to 11½ knots, and tonnage from 700 to 1,200. For every delay not justified the fine is fixed at 250 francs for every six hours. The number of steamers must be three, and the voyage going and coming is every two months. The second is for the transport of the mails between Tarifa and Tangiers, runs four years, and grants an annual subsidy of 7,080 francs. The third is for the service between Barcelona and Palma, between Valencia and Palma, and between Alicante and Palma, touching at Iviza, that is, three round voyages; steamers to be 150 horse-power; the company to have at least four steamers. The subsidy is 97,425 francs per year; the contract runs six years from August 10, 1872, to be thereafter extended. The fourth is for the weekly mail service between Barcelona and Mahon, and from Palma to Mahon, and *vice versa*. The subsidy is fixed at 56,000 francs per year. The passage from Mahon to Palma must be made in twenty hours, and that from Palma to Mahon in thirteen. The contract runs eight years from the end of April, 1879. The fifth runs ten years from November 1, 1881, and accords a monthly subsidy of 45,000 francs for the following lines: Havana and Porto Rico, touching Nuriitas, Gibare, Baracoa and Porto Plata, Mayaguez, Pome, Puerto Principe, and Santiago de Cuba; Havana and Vera Cruz, touching Progresso; Havana and Colon, departing from Santiago de Cuba, and touching Kingston and Barranquilla; Havana and La Guayra. The first line has three departures per month, the others are only monthly. The ships must be at least 150 tonnage. There are heavy fines and severe rules, as well for the postal service as for the transport of passengers. The sixth is for the mail service between Spain and the Antilles, and calls for three monthly departures, two from Cadiz and one from Santander for Havana, and *vice versa*. The ships must be 2,000 tons register each, and number twelve. Speed required is 11 miles per hour, and the voyage, going, to be eighteen days; returning, seventeen days. The seventh, of the 19th August, 1879, is for the service between Spain and Manila; runs ten years, and with a subsidy which can not exceed 100,000 francs for every round voyage. The voyages must be completed in forty days in good seasons, and in forty-three in bad. The itinerary calls for 8,139 miles. The departure is monthly, and is from Cadiz and from Manila, touching Carthagena, Barcelona, Port Said, Suez, Aden, Pont de Galle, Singapore. It calls for six steamers, and speed 11 knots. Heavy security and severe fines are established for the exact performance of the contract.

BRITISH SUBSIDIES.

The postal and transport services, of which table follows, are performed by several companies. The principal ones are: The Royal Mail Steam-ship Company, which makes the service of Brazil, of La Plata, from Southampton, and that from St. Thomas to Porto Rico; the Pacific Steam Navigation Company, running between Liverpool, Brazil, Plata, Chili, and Peru, and from Panama to Valparaiso; the Union Steam-ship Company, limited, which makes the service for the Cape of Good Hope and Zanzibar, leaving and returning to Plymouth, touching every month the islands of Ascension and St. Helena, completing the voyage in thirty-eight days; the British India Steam Navigation Company, running between Aden and Zanzibar; the West India and Pacific Steam-ship Company, limited, and the steam-ships of Bernard Hall and Arthur Bower Farwood, which make the service from Liverpool to La Guayra in twenty-four days, from Liverpool to Vera Cruz in thirty-four, stopping at Puerto Principe; and from Liverpool to Santa Marta in twenty-eight; the Cunard Company, which performs the service from London and Halifax and the island of St. Thomas, and that from Liverpool to New York and Boston; the Liverpool, Brazil and River Plata Steam Company, running between Liverpool, Brazil, and the Rio de la Plata. The steam-ships of William Inman make the service between Liverpool and New York via Queenstown. The Southeastern Railroad Company and the London, Chatham and Dover Railroad Company run steamers between Dover and Calais.

The principal clauses in the contracts with these companies are, that any differences are to be arbitrated; to have the steam-ships of determinate dimensions and speed; not to assign the concessions to others, and to pay fines in case of delays. The subsidy is not based on the distances run, but on the greater or less service rendered by the company to the English postal department, and is fixed by private contract.

Service of English postal packets, and sums paid for the postal service for the year ending March 31, 1882.

United Kingdom	£109,577
Europe	16,000
America	190,760
Africa	18,800
Asia	360,000
Cyprus	9,000

EXPENSES OF ESTABLISHMENTS.

Salaries, wages	832
Travelers	65
Rents	30
Expenses of ports and docks	2,500
Casual expenses	70
Pensions	133
Total	607,767
Sums paid by the governments of India and Belgium	90,500
Total subventions paid by the English Government	617,267

DETAILS.

United Kingdom, Holyhead, and Kingstown	85,000
Aberdeen and Lerwick	2,200
Scrabster and Stromness	2,000
Southampton and Channel Island	6,500
Liverpool and Isle of Man	4,500
Penzance and Scilly	450
Southampton and Cowes	150
Portsmouth and Ryde	800
Dunvegan and Lochmaddy	420
Oban and Fort William, and Tobermory, Strome Ferry, Portree, etc	290
Kerbivall and North Orkney Islands	120
Stremway and Ullapool	1,300
Androsan and Arran	350
Greenock, Port Ellan, and Portasking Islay	800
Greenock, Rothesay and Ardrishing	1,800
Tobermory, Coll, and Eyree	95
Oban and Auchnacraig	125
Oban and Fort William	600
Oban and Tobermory	500
Weymouth and Channel Island	50
Shetland and Fair Islands	137
Shetland and Foula	80
Greenock and Lochgalhead	100

Service of English postal packets and sums paid for the postal service, etc.—Continued.

Inverness and Fort Augustus	£210
Allowance for additional service	100
Total	109,577

EUROPE.

Dover and Calais (contract March 25, 1878)	8,800
Excess of premium over penalty	2,700
	11,500
Dover and Ostend (payment by Belgium)	4,500
Total	16,000

AMERICA.

United Kingdom and United States	71,000
Halifax, Bermuda, and Jamaica	17,500
England and West Indies	81,700
Twil's Island and St. Thomas	300
Belize and New Orleans	1,760
Liverpool and Callao	6,200
Liverpool and Puerto Cabello, Tampico and Santa Marta	1,200
Southampton, Brazil, and La Plata	5,700
Panama and Valparaiso	5,500
Total	190,860
Deduction of amount of penalty	100
Total	190,760

AFRICA.

West coast of Africa and England	8,800
East coast of Africa, Aden and Zanzibar, Table Bay and Zanzibar	10,000
Total	18,800

ASIA.

East India and China, between Brindisi and Bombay (via Suez), touching Aden, between Brindisi and Shanghai (via Suez), touching Aden, Point de Galle, and Colombo, Penang, Singapore, Hong-Kong	360,000

CYPRUS.

Larnaca and Alexandria	9,000

THE PENINSULAR AND ORIENTAL COMPANY.

In 1837 the English Government, for political and commercial reasons, began a postal service between the United Kingdom and India, which was performed for the most part by sailing vessels of the navy. This method proving expensive and unsatisfactory was given up; the admiralty, on the 22d of August, 1837, contracted with Captain Bowme, agent of a company which afterwards took the name "Peninsular and Oriental," for a weekly service between Falmouth and Gibraltar, touching Vigo, Oporto, Lisbon, and Cadiz, and accorded a subsidy of £29,000 per year. In 1840 the line was extended to Malta and Alexandria, with an increase in the subsidy to £32,000, the company binding itself to put on steamers of from 1,400 to 1,600 tonnage, with 400 to 450 horse-power, and so constructed as to carry heavy artillery for war purposes, the departures to be monthly and the passage to be made in fifteen days. This company having been re-enforced by a number of heavy capitalists, on September 24, 1842, entered into a contract for a service between England and India, and in that month the first steamer of this line left Southampton for Calcutta, followed soon by the *Bentick* and *Precursor*, each of 1,800 tons and 250 horse-power. The forty-first yearly balance-sheet of the company, being for the year 1881, shows that the company's fleet is composed of fifty-one steam-ships, comprising six in course of construction. Their total capacity is 162,312 tons, with total of 28,000 horse-power. There are also eighteen small boats with 1,257 tonnage, making the subsidiary service between ports. The yearly distance run on all the lines exceeds 2,000,000 miles, which is not so surprising when it is considered that the distance run from London to Yokohama is 11,395 miles, and that between London and Sydney is 12,126 miles.

THE ROYAL MAIL.

In 1839 Mr. Irving, in his own name and in that of several merchants and bankers of London, proposed to the English Government the formation of a maritime company for the transportation of the mails, passengers, and merchandise to the Antilles and Central America, using large steamers of 400 horse-power, and that there should be accorded an annual subvention of £240,000. This proposition was accepted by convention of September 26, 1839, by which it was stipulated that there should be in the line fourteen steamers, each of 400 horse-power, and that the yearly distance run should not be less than 700,000 miles. The company not finding itself able to operate on so large a scale, the Government reduced its demand to ten steamers and to 395,000 miles of distance, but left intact the subvention of £240,000. The line was in full operation in 1840. The steamers were wooden side-wheelers, making less than 8 knots per hour, and the service was so unsatisfactory that many claims were made against the company for delays. Up to 1848, by reason of the loss of some of their best steamers, the average return was about 3¼ per cent. After that year things went better, and in August, 1850, the admiralty signed a new contract with the company, by which the line was extended to Brazil, which extension was in operation by January 1, 1851. This new contract increased the subvention to £270,000, and required that there should be fifteen steamers in the service, capable of carrying heavy cannon—ten of 400 horse-power, four others of 250 horse-power, and a small one of 60. In case of war the Government reserved the right to acquire and use the steamers of the company, at a price to be fixed by arbitration, and required £50,000 security for the performance of the contract.

In 1852 the capital, which in the beginning was £890,000, was increased to £1,423,460.

The old conventions having expired December 31, 1856, new ones were stipulated with the admiralty, but with a diminished subvention. The twelve years from 1854 to end of 1865 gave the following results:

Average yearly receipts	£822,224
Average yearly expenses	672,892
Net profits	149,332

If, therefore, the company had not received the Government subvention during the said twelve years, it would have lost money.

The company's fleet counted on April 14, 1882, twenty-five steamers, having a total tonnage of 62,843, and a total horse-power of 10,280. The balance-sheet for 1881 gave the following results:

Received:	
Government subvention	£97,135
For transport of merchandise, passengers, and money	693,169
Total	790,304
Expended	753,811
Net profit	36,493

The loss of the steamer *Tiber* and the reduction of the Government subvention to about one-half what it was in 1865 (it was £209,000 in that year) contributed to depress in an exceptional manner the company's profits in 1881.

It is unnecessary to give the details of subsidies paid the Cunard and other companies.

Belgian Subsidies.

There are at present two lines subventioned by the Belgian Government, as follows:

(1) The line of steamers between Antwerp and New York having an obligatory weekly service in both directions and between Antwerp and Philadelphia with a tri-weekly departure from each place. This is the Red Star line, which is guarantied 500,000 francs per year for the postal service.

(2) The line between Antwerp and La Plata, and Antwerp and Rio de Janeiro. This is operated by the Sud Americaine Compagnie, and makes three voyages per month each way, for which the Government guaranties the sum of 500,000 francs per year. The Government does not accord bounties by the course calculated on the number of leagues run; it guaranties only a minimum of return for the postal service. On the other hand, the lines in question have and must have a postal character before every thing else. It is not simply an accessory, and the postal service must not suffer in any way by commercial traffic or passenger transportation. The duration of the subventions is fifteen years; both parties reserve the right to dissolve the contract from the end of the ninth year. The Government exacts as follows: First, the Belgian flag; second, such number of steamers of the first-class as will enable the company to make the service without interruption; third, a min-

imum tonnage of 2,700 tons; fourth, different classes for passengers; fifth, prompt departures; sixth, a prescribed speed and heavy fines for each delay.

The above contracts were made in 1873 and 1876, and were slightly modified in 1882.

DUTCH SUBSIDIES.

The lines subventioned by the Government of the Netherlands are:

(1) The line from Flessinga to Queensborough, under the direction of the Zeeland Company.

(2) The line from Amsterdam to Batavia, under the direction of the Netherland Company.

(3) The different lines in the Indian Archipelago.

(4) The line from the Island of Java to China, under the direction of the India-Netherland Steam-ship Company.

The total sum of the subventions is 705,000 florins; that is, for the first three lines for every mile 1.93 florins, 0.33 florin, 3.90 florins. The subvention of the fourth line is 10,000 florins per voyage; this service is once in three months, and will be monthly, which will make the total subvention 785,000 florins.

All the aforesaid lines are postal and commercial. The subvention to the Flessinga-Queensborough line and the Amsterdam-Batavia line is accorded exclusively for the transport of letters, etc., of the postal department, while the subvention accorded to the Java-China line and to that of the Indian Archipelago has a commercial scope.

The contract for the Flessinga and Queensborough line was made for ten years from May 15, 1878, and that for the Amsterdam and Batavia line for an indeterminate time, commencing 1877. The contract for the line in the Indian Archipelago is for fifteen years from January 1, 1876, while that for the Java-China line dates from 1880. From what precedes it results that in the Netherland colonies the companies are subventioned for a commercial as well as postal purpose, while in Holland itself the subvention is strictly postal. The subventions are accorded by private contract.

SWEDISH AND NORWEGIAN SUBSIDIES.

The Italian minister at Stockholm, in transmitting the following list, remarks that for the postal service made by steamers between the different Swedish ports there is conceded an indemnity, which varies according to the importance of the lines, and which, for the most part, represents but an insignificant part of the expenses of navigation. Only the Malmo-Stralsund line is subsidized on a large scale. Under a convention concluded between Germany and Sweden February 24, 1869, the Swedish Government assumed the obligation to pay the German postal administration, for a regular steamship service between the said two ports, half of the expenses of navigation and a yearly sum of 2,000 thalers for repairs to steamers in the service.

Table of subventions accorded by the State to private navigation of steamers for the service between different Norwegian ports.

	Crowns.
Fjordene to Stavanger:	
For passage on Fjordene to Ryfylke	12,000
For passage, on Högsfjord	1,000
Söndre Bergenhus:	
To steamer *Karmsund* for passage on exterior side between Bergen and Hangesund	3,000
For passage Bergen-Masfjord	2,400
To the North Bergenhus:	
Steam-ship, for passage upon Fjordene to North Bergenhus	35,000
To steamer *Molde*, for passage on Fjordene to Romsdals	6,500
For maintenance of steamer between Trondhjem-Hitteren and Froyen.	7,000
Upon Fjordene to North Trondhjines:	
For passage on Anasenfjord	800
For passage to the interior, Foldenfjord	4,000
Upon Fjordene to Nordlands:	
To steamer *Porghatten*, for passage to Bindalen, Vego, and Velfjorden	12,000
To steamer *Hegelands*, for passage to Vessen and Ranenfjord	16,000
To Hegeland Steam-ship Company, for passage on Fjordene to Saltens Fodgeri	14,000
To the Tromso Amts Company, for passage on Fjordene to Tromso	58,000
On Fjordene to Finnmarkins:	
For passage to Altenfjord	23,000
For passage to Vestifinmarkske Fiskvoer	10,000
To the Rederie, for steamer *Varanger*, for passage to Varangerfjord	25,100
To the Bergenske and Nordenfjilske Company:	
On the line Bergen-Throndhjem, Hammerfest-Vadso	110,000
On line Sofoten-Vesterallen-Ofote, with two boats in fishing time and one at other times	57,000
For passage to Otterens Vasdrag	1,600
To steamer *Telegraph* to Selbosoen	1,000
Indemnities to persons employed for the department of the marine and Postos to supervise the steamers subventioned and for sending of telegrams	8,000

Table of appropriations figuring in the Norwegian budget for the year 1881–'82, for subsidies to steamers performing the postal service on the following lines:

	Crowns.
FredErickshald, Stromstadt	150
Frederickstadt, Hoaloerne	400
Christiania, Bundifjord	50
Christiania, Christianssand	22,000
Christiania, Bergen	37,760
Christiania, Christianssand, Bergen, Throndhjem, Tromso	100,000
Christiania, Kjobenhvn	780
Christiania, Hamburg	2,600
Drammen, Mass	1,440
Horten, Holmestrand	70
Skein, Langesund	1,440
Porsgrund, Bolvig-Herre	70
Tredestrand, Boroen	2,300
Christianssand, Frederikshavn, and Frederikshavn, Christianssand, Bergen	71,800
Christianssand, Mandal, Svinor, Spangereid	180
Stavanger, Bergen	6,656

Table of appropriations figuring in the Norwegian budget, etc.—Continued.

	Crowns.
Stavanger, Hardanger	2,500
Stavanger, Hoitingso	3,328
Skudesnoeshavn, Renneso, Stavanger, Hogsfjord	520
On Ryfylske Fjorde	3,200
Bergen, Hangesand, and Ohlandsvaag	900
Bergen, Hardanger	4,800
Bergen, Fjorddestriklerne, in Sondhorland	4,000
Bergen, Hans, Hammer, Hosanger, Salhus	800
Bergen, Bolstadoren	600
Bergen, Logn, Bergen, Sondfjord, and Bergen, Nordfjord	26,160
Lerdal, Lyster, Lerdal, Gudvanger	10,000
On Sön and Nordfjord	2,400
Bergen, Manger, Bovaayen, Ostheim Masfjord	
Bergen, Lygren, Lindaos, Leim	1,600
Bergen, Fane, Os, Strandvik, Fuse, Haalandsdal, Sammanger	2,400
Upon Sondmore, Romdalske, Fjorde	1,300
Upon Fjordene in Romdals Fodgeri	1,500
Upon Fjordene in Nordmore Fodgeri	13,000
Throndhjem, Hamburg	22,000
Throndhjem, Christiansund	8,820
Throndhjem, Indherred	4,000
Throndhjem, Hitteren, Froyen	2,000
Throndhjem, Orkedal	230
Bergen, Throndhjem, Vadso	150,000
On Vefsen and Ranenfjordene	2,000
On Saltenske-Fjorde, and on Foldenfjorden	4,000
Brono, Bindalen, Fiskerosen, Vigo, Velfjorden	2,000
Lofoten, Vesteraalen, Ofoten	20,000
On Tromso, Amts Fjorde	7,000
On Altenfjord	2,500
On Varangefjord	900
On Mjosen	15,000
On Ojeren	150
On Kroderen	1,200
On Spirillen	200
On Randsfjorden	1,200
On Pinsjoen	180
On Nordsjovandet	1,100
On Flaa, Havideseid, and Bandalsvandene	480
To divers steam-ships to transport the mails to foreign countries	2,236
Total	586,000

ITALIAN SUBSIDIES.

The Italian steam-ship companies Florio and Rubattino were consolidated by the terms of a convention with the Government, dated June 15, 1877, and together receive from the Government an annual subvention of 8,139,576 francs, or an average of 16.84 francs per league, the total of leagues run being 483,252. The tariff establishes from 0.93 to 0.66 franc for passengers of the first class, from 0.62 to 0.44 franc for passengers of the second class, and from 0.31 to 0.22 for those of the third class for each league, exclusive of food. For merchandise, according to category and according to distance, freights vary from 1.50 to 10 francs per quintal. The speed varies, according to the line, from 8 to 10 knots per hour, and so, also, according to the line, varies the capacity of the ships, *i. e.*, from 200 to 1,300 tonnage. The carriage of the mails is obligatory. Fines of from 50 to 100 francs for every hour of delay in starting and arriving not justified are established. The company is obliged to transport at half-price civil and military employés and prisoners.

They possessed at the beginning of the present year ninety-two steamers, with a total tonnage of 128,330. They have in course of construction the following steam-ships: The *China*, of 5,000 tons, the *Japan*, of 5,000 tons, and the *Java*, of 3,600 tons, in English ship-yards, and the *Birmania*, of 3,200 tons, in Orlando's yard, at Leghorn.

The subvention applies to the following lines of this company:

1.—THE SARDINIAN AND TUSCAN ARCHIPELAGO LINE.

Lines.	Leagues per voyage.	Voyages per year.	Leagues per year.	Quota per league.	Yearly payments.
					Francs.
Leghorn, Cagliari, Tunis	318	52	16,536	18	297,648
Leghorn, Civita Vecchia, Cagliari	230	52	11,960	18	215,280
Siniscola, Orosei, Tartoli, Cagliari	260	52	13,520	18	243,360
Leghorn, Portotorres	126	52	6,552	18	117,936
Leghorn, Bastia, Maddalena, Portotorres	148	52	7,696	18	138,528
Leghorn, Civita Vecchia, Maddalena, Portotorres	198	52	10,296	18	185,328
Cagliari, Muravera, Tortoli, Orosei, Siniscola, Terranova, Maddalena, Santa Teresa, Portotorres	162	52	8,424	18	151,632
Cagliari, Naples	178	52	9,256	18	161,608
Cagliari, Palermo	146	52	7,592	18	136,656
Leghorn, Gorgona, Capraia, Marciana, Portoferraio, Rio Marina, Portolongone, Pianosa, Giglio, Santa Stefano	104	52	5,408	18	97,344
Leghorn, Portoferraio	30	52	1,560	18	28,080
Portoferraio, Piombino	8	365	2,920	....	30,000
Total	....	....	....	....	1,808,400

2.—THE SICILY LINE.

Palermo, Messina	82	52	4,264	19	81,061
Taranto, Brindisi	102	52	5,304	19	100,776
Naples, Palermo	112	365	40,880	19	776,720
Naples, Messina, Reggio, Messina	132	52	6,864	19	130,416
Naples, Diamante, Belvedere, Paolo, Amantea, St. Eufemia, Pizzo, Messina, Reggio, Messina	166	52	8,632	19	164,008
Naples, Paolo, Amantea, St. Eufemia, Pizzo, Tropea, Gioia, Tauro, Messina, Reggio, Messina	162	52	8,124	19	160,056
Naples, Pisciotta, Paolo, Amantea, Pireo, Reggio, Messina	154	52	8,008	19	152,152
Naples, Messina, Reggio, Messina, Catania, Syracuse, Malta	236	52	12,792	19	243,048
Palermo, Trapani, Farignana, Marsala, Pantalleria, Tunis	154	52	8,008	19	152,152
Palermo, Cefalu, St. Stefano, Capo d'Orlando, Patti, Milazzo, Messina	88	52	4,576	19	86,944
Messina, Catania, Syracuse, Malta	114	52	5,928	19	71,136
Palermo, Trapani, Marsala, Mazzara, Sciacca, Porto Empedocle, Palma, Licata, Terranova, Scoglitti, Pozallo, Syracuse	184	26	9,568	19	181,792

2.—THE SICILY LINE—Continued.

Lines.	Leagues per voyage.	Voyages per year.	Leagues per year.	Quota per league.	Yearly payments.
					Francs.
Messina, Lipari, Sabina	38	104	3,952	19	75,088
Palermo, Ustica	24	26	624	19	11,856
Messina, Reggio	6	730	4,380	....	24,000
Porto Empedocle, Lampeduso	82	52	4,264	....	17,000
Total	....	....	....	....	2,428,260

3.—TUNIS, EGYPT, INDIA, CHINA LINE.

Tunis, Susa, Monastir, Medlisa, Sfax, Gerba, Tripoli, Malta	452	52	23,504	14	329,056
Genoa, Leghorn, Naples, Messina, Catania, Alexandria	920	52	47,840	....	300,000
Genoa, Leghorn, Naples, Messina, Catania, Port Said, Suez, Aden, Bombay	3,064	12	36,768	....	1,080,000
Genoa, Leghorn, Naples, Messina, Catania, Port Said, Suez, Aden, Ceylon, Penang, Singapore	4,374	4	17,496	32	559,872
Total	....	....	....	....	2,268,928

4.—THE LEVANT LINE.

Venice, Ancona, Freniti, Viesti, Bari, Brindisi, Piræus, Constantinople	830	52	43,160	21	906,360
Palermo, Messina, Catania, Piræus	448	52	23,296	21	489,216
Piræus, Salonica	176	26	4,576	21	96,096
Piræus, Smyrna	140	26	3,640	21	76,440
Brindisi, Corfu	78	52	4,056	21	85,176
Ancona, Zara	58	52	3,016	21	65,336
Total	....	....	....	....	1,716,624

The Italian Government also pays 500,000 francs per year to the English Peninsular and Oriental line for a weekly postal service from Venice to Brindisi, and *vice versa*, under a contract by which that company obligates itself to transport the mails gratuitously between Italy and Egypt, and also to carry civil and military employés, who travel by reason of their respective services, and missionaries, at half the price established for other passengers, not only on the line subsidized, but also on the company's other lines from Suez.

GERMAN SUBSIDIES.

The subventions paid for the lines from Hamburg to Tampico, from Kiel to Koersen, from Lubeck to Malmoe, from Rostoik-Nykjoping, and from Stralsund to Malmoe amount to 332,500 francs per year. The lines from Bremen and Hamburg to the United States are compensated on the basis of the value of the postal service rendered.

Table of subventions accorded by various European states to international steam navigation lines.

States.	Number of companies subventioned.	Average duration of concessions.	Amount of subventions.			Average speed required.
			Per year.	Per league.	By other criteria.	
		Years.	*Francs.*	*Francs.*		*Miles.*
Austria	1	10	*5,000,000	2.85 to 10.00		8 to 12
Hungary	1	10	375,000		For 150 voyages	8 to 12
England	10	1	15,430,145		According to the importance of the postal service.	9 to 12
France	2	15 to 24	32,414,457	25.90 to 45.70		9 to 12
Spain	7	8 to 10	5,000,000		According to the postal service.	11 to 12½
Belgium	2	15	1,000,000		Guaranty of an average return.	10 to 11
Holland	4	10 to 15	1,762,500	5.00 to 9.75		9 to 11
Germany	4	10	332,500		According to postal service.	9 to 10
Italy	2	12	8,639,576	†12.00 to 32.00		8 to 10

*Other advantages. †According to the line.

DUNHAM J. CRAIN,
Consul.

UNITED STATES CONSULATE,
Milan, December 5, 1882.

SUBSIDIES TO GERMAN SHIPPING.

TRANSMITTED BY CONSUL-GENERAL KREISMANN, OF BERLIN.

LETTER AND MEMORIAL OF PRINCE BISMARCK TO THE GERMAN PARLIAMENT.

I have the honor to bring to the notice of the Department a memorial that the chancellor of this Empire, Prince Bismarck, has recently caused to be prepared and submitted to the Reichstag on the subject of "State Bounties and Subsides to Shipping." The occasion for said memorial was found in the provisions of the "French Merchant Marine Act," passed January 29, 1881.

Apart from the fact that manifestations of the great German chancellor on questions of public policy are always deserving of attention, it is regarded as of all the more interest to submit this document, together with a full and thoroughly prepared translation, in view of the circumstance that the true interests of American shipping find in the present head of the Department an unquestioned advocate, reference being made in the memorial itself, as will be perceived, to the views of and measures proposed by the Secretary of State in his memorable speech on the subject, delivered in the Senate during its last session.

H. KREISMANN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, May, 1881.

LETTER OF PRINCE BISMARCK.

[Translation.]

BERLIN, *April 6, 1881.*

A new "merchant shipping act," the object of which is to afford the State aid to the French merchant shipping, was promulgated in France on the 29th of January, 1881, and is calculated to exercise an influence on the shipping trade of other countries, and in particular that of Germany.

The undersigned therefore takes occasion to lay a memorial relative to this law before the German Parliament for its consideration.

The Imperial Chancellor,
VON BISMARCK.

Memorial of Prince Bismarck for assistance to German steam-ships, based upon a review of the French mercantile marine act, of the 29th of January, 1881.

The following is the text of the new French mercantile marine act, passed on the 29th of January, 1881, which proceeded from parliamentary initiative:

"ARTICLE 1. Exemption from pilotage is accorded to all sailing ships not exceeding 80 tons, and to steamers up to 100 tons when they are habitually engaged in navigating from port to port and in the mouths of rivers. However, on the demand of the chamber of commerce, and after inquiry in the usual form, public administrative regulations shall determine the improvements to be introduced into the present regulations in the interest of navigation.

"ART. 2. For over-sea vessels, the inspection prescribed by article 225 of the commercial code, for a fresh cargo shipped in France shall not be obligatory unless more than six months have elapsed since the previous inspection, or the ship has suffered damage.

"ART. 3. The deeds or minutes showing a transfer in the ownership of ships, total or partial, will only be liable to payment of the fixed registration duty of 58 cents. Article 5, paragraph 2, of the law of the 28th of February, 1872, is abrogated so far as it is contrary to the present clause.

"ART. 4. As compensation for the charges which the customs tariff imposes on the builders of sea-going vessels, they are allowed the following bounties:

"Per ton, gross measurement:

For iron or steel vessels	$11.58
For wooden vessels of 200 tons and above	3.86
For wooden vessels of less than 200 tons	1.93
For mixed vessels	7.72

"For engines put on board steam-vessels, and auxiliary apparatus, such as steam-pumps, accessories to motive power, windlasses, ventilators worked mechanically, as well as for boilers and pipes, per 100 kilograms, $2.32.

"Ships, wood bordered, of which the frame-work and beams are wholly of iron or steel, shall be considered as mixed vessels.

"ART. 5. Any transformation of a ship having the result of increasing the measurement gives right to a bounty calculated on the above tariff, according to the number of additional tons in the measurement. The bounty is accorded for the engines and auxiliary apparatus put on board the ship after completion. When the boilers are changed the owner of the ship is allowed a compensation of $1.54 per 100 kilograms for the weight of the new boilers, without the tubes, when of French make.

"ART. 6. The bounties, fixed by articles 4 and 5, are paid after the delivery of the French register, by the receiver of customs, at the place of construction, or the place nearest to it.

"ART. 7. The system of import of materials free of duty established in execution of article 1 of the law of May 19, 1866, and article 2 of the law of March 17, 1879, is abolished.

"ART. 8. With respect to ships on the stocks at the moment of the promulgation of the present law, builders will only receive the bounties fixed by article 4, subject to deduction of the customs duties fixed by the conventional tariffs relative to foreign materials of which they may have obtained the free import for ship-building.

"ART. 9. As compensation for the charges imposed on merchant shipping for the recruitment and service of the navy, there is accorded for a period of ten years from the promulgation of the present law, a bounty on navigation to French sailing ships and steamers. This bounty applies exclusively to over-sea navigation. It is fixed per ton net measurement, and per 1,000 miles run at 29 cents for ships new from the yard, and decreasing annually; 1½ cents for wooden vessels; 1½ cents for mixed vessels; 1 cent for iron vessels.

"The bounty is increased 15 per cent. for ships built in France on plans previously approved of by the navy department. The number of miles run is calculated between the point of departure and the point of arrival, measured in a direct maritime line. In case of war, trading ships may be requisitioned by the State. The bounty is not given to ships engaged in the greater or lesser fisheries, to subsidized lines, or pleasure navigation.

"ART. 10. Every captain of a ship receiving one of the bounties fixed by article 9 of the present law shall be bound to carry gratuitously the letter bags delivered by or addressed to the post-office in accordance with the consular decrees of 19 Germinal, A. X. If an agent of the post-office accompanies the mails, he also shall be carried gratis.

"ART. 11. A public administrative regulation, containing especially a table of distances from port to port, will determine the application of the present law."

This act is the result of many years' discussion in and out of the French Parliament with regard to the most efficacious means of assisting the French merchant shipping and assuring its prosperity in its competition with the flags of other nations.

The several committees which have successively occupied themselves with the matter have, upon exhaustive inquiry into every thing bearing upon the shipping trade, decided that a whole series of privileges are needed for the French merchant service.

In addition to the privileges ultimately embodied in the law, the following points were, among others, proposed, viz:

The trade tax for commercial shipping trade was to be submitted to a revision, and in certain cases materially reduced.

The existing legal provisions imposing upon ship-owners the obligation of caring for and bringing home French sailors who may fall sick and be impoverished in foreign ports were to be so altered as to make that care and repatriation incumbent upon the State.

The system of mortgages on ships was to be reformed for the better security and more profitable engagement of capital seeking investment in ship's mortgages.

Cheap credit was to be made accessible to all enterprises in the way of ship-building and the shipping trade by the State eventually assuming an interest guaranty to the amount of 2,000,000 francs.

Surtaxes to be levied on indirect imports, however, may be made the principal subject of consideration, as specially calculated to make the direct imports of foreign products profitable and attractive to French trade, and thus likely to stimulate the French navigation in foreign waters. It was agreed on all sides that the differential duties should not be abolished, but considerably extended beyond their present limits.

The whole of these points were left unconsidered in the above act, partly because they were already to be regulated in another way, as, for instance, the differential duties in the customs tariff laws already under parliamentary consideration, and partly because it was thought more expedient to let them stand over to be specially dealt with. There was, however, according to the unanimous opinion expressed by all parties of both houses of Parliament, a determination on no account to let these questions drop.

The act itself culminates in articles 4 and 9, relating to bounties on ship-building and navigation.

The bounty to ship-builders is defined in article 4 as intended for equalization of the burdens which the French tariff imposes on the builders of sea-going vessels.

When in the years 1860 to 1870 the differential duty on the flag was abolished in France, a compensation was accorded to French owners to enable them to compete better with other flags by means of affording them facilities in constructing whatever vessels they might need as cheaply as possible.

For this reason in the first instance the duty of 37 cents per ton levied upon ships imported and naturalized was abolished, and in the second place the import, duty free, of the necessary ship-building materials in France, or repayment in proportion to the import duties on such material, was to be made. This repayment was effected by means of *acquits à caution* (customs discharge certificate) and, in accordance with the peculiarity of this system, did not yield a full counter value for the respective customs duties. It was therefore considered necessary to remedy matters so that the duty should be calculated upon an average of what it would amount to on ship-building materials for the construction of a ship's ton in France according to the several descriptions of vessels, and that a bounty should be secured to the ship-builder to that amount. It was argued that in view of the difference in the state of affairs in France and that of other maritime countries, especially England, it was absolutely necessary that a compensation bounty be accorded to the French ship-builder in this form, so as to enable him to compete with foreign builders. The provisions of article 4 of the act answer this purpose.

With regard to the extent of the bounties allowed, they are, according to the calculations made in the course of the parliamentary debates, equal to a protection of 12 per cent. This, among others, is shown in the case of a newly launched steamer at Marseilles. Said steamer had a gross measurement of 1,100 tons; the machinery on board a weight of 150 tons. This gives an allowance of $12,738 for the vessel and of $3,474 for the machinery; in all, $16,212. The cost of the construction of this steamer is set down at $144,750.

It may also be gathered from the statements made on the part of the Government in the course of the parliamentary debates that the measure is something more than "a compensation for the charges which the customs tariff imposes on the builder of sea-going vessels," as specified in article 4. Thus, in the sitting of March 11, 1879, the minister for agriculture and commerce distinctly denied that the State received a compensation for the payments imposed upon it by article 4, inasmuch as the duties which according to the law hitherto in force raised on materials imported for ship-building and which were remitted would not fall to the exchequer. "That is a delusion, a mistake," he continues, "for it is certain that from the day when the remission of the duty ceases, no more ship-building materials will be imported into France. The ship-yards will, of course, get their supplies from the nearest industrial sources. Thus our home industrial establishments will get the benefit of these orders, and I am glad of this for my country's sake. The State will derive no revenue, but will, on the contrary, out of its own means, allow French ship-builders the difference in price between ship-building materials in France and those of abroad. It is therefore in reality a bounty."

No misgivings were expressed from any one side in the French Parliament as to this kind of State aid to private industry.

In this one question it was unanimously agreed by all parties represented in the French Parliament, both by the advocates for free-trade and for protection, that ship-building in France must be protected against the competitors of other more favored countries, and that the provisions proposed in article 4 of the act were to be regarded as the proper means for the purpose.

The charges upon the French exchequer through the bounties on ship-building would according to a competent authority's calculations, amount to about as follows:

For maintenance of the French merchant service at the strength it had, for instance, on the 31st of December, 1879, with a sailing tonnage of 676,894 and steam tonnage of 255,959, a fresh supply of 52,000 tons (sailing) and 18,000 tons (steam) would be required annually, according to an average arrived at by long experience, of one-thirteenth for sailing vessels and one-twentieth for steam vessels. About a third of the French ships are regularly built abroad. The remaining two-thirds would impose a charge on the French exchequer of $309,649.20. To this must be added the ships necessary for increasing the French tonnage, which is the real object of the law. The last returns showed that the French merchant service employed 831 sailing vessels, with a tonnage of 327,800, and 81 steamers, with 120,500 tons, on long voyages. The law has less tendency to stimulate an increase of sailing vessels than that of steam-ships.

Sailing vessels are therefore not included in considering the anticipated augmentation of the French merchant service, while the annual increase in steamers for the next few years is estimated at 56,000 tons gross measurement. If two-thirds of these are built in France, this would yield an annual ship-building bounty of $546,402.30, to which must be added the above $309,649.20 for maintenance of strength, making in all $855,955 for the next few years. The merchant shipping will then increase at a slower rate and only on a pace with the general improvement of the French shipping trade, which would lead to a considerable decrease of State aid. This diminution of State aid, however, would be balanced by the increased expenditure necessary for the maintenance and renewal of the tonnage thus augmented.

Under these circumstances the amount of State aid required for ship-building would, after a lapse of a few years, prove to be about $386,000 annually.

Article 9 of the law makes provision for the allowance of navigation bounties. The bounty is fixed per ton net measurement and per thousand miles run at 29 cents for ships new from the yard, and diminishing year by year by a small percentage, until it ceases after twenty years in the case of wooden vessels and after thirty years in that of iron vessels.

The bounty is increased 15 per cent. for steamers built on plans approved of by the navy department.

A further stimulus is given to the French ship-builder by the provision that foreign-built ships registered under the French flag shall only be entitled to half the bounty accorded to those of French construction. The bounty only applies to vessels in the over-sea trade, and not where they are employed in the already otherwise privileged fisheries or belong to subsidized mail lines.

The coastwise shipping, according to the framing of the law, so far as the petty or home coast trade, *i. e.*, the trade from one port to another, falls under this denomination, being solely reserved to the French flag, is considered sufficiently protected. On the other hand, the so-called great coast trade, which, according to the French terminology, comprises the shipping trade in European waters, and consequently is in the nature of things just as exposed to the competition of other nations as the over-sea trade, remains for the present unprotected. Steps in this direction, however, have been suspended until the effect of the bounties accorded to the over-sea trade shall have been ascertained.

The charge on the French exchequer arising from the payment of bounties on navigation as imposed by article 9 is estimated by a competent authority at $14,397,800 for the periods of ten years provided for in the law. This sum would be distributed over the several years as follows:

In one year	$799,020
In two years	1,146,420
In three years	1,493,820
In four years	1,513,120
In five years	1,532,420
In six years	1,551,720
In seven years	1,571,020
In eight years	1,590,320
In nine years	1,609,620
In ten years	1,628,920
Total in ten years	14,397,800

This estimate, as far as the tonnage and the estimated increase of the French merchant shipping is concerned, is based upon the same premises as those taken in calculating the funds which the French Government would require to defray the ship-building bounties, and to which we have already referred. For the rest, it is calculated that a steamer runs some 36,000 miles a year and a sailing vessel about 12,000 miles.

With regard to the financial results accruing to the owners of vessels from these navigation bounties the following remarks from the journal (the Soir) may be quoted, as well as the extract below from a communication addressed by a deputation of British ship-owners to the British foreign office on the subject of the law.

The Soir, in its issue of 21st of February, 1881, says:

"From the debates in the Chamber of Deputies upon the bounties bill it appears that the distance which a steamer, built upon the newest principles, can travel in the course of a year may be roughly set down at 40,000 miles.

"A steamer of the class of the large ocean vessels at present used, with a net measurement of about 2,700 or 3,000 tons actual burden, will accordingly receive for a thousand miles run $781.65, namely, 2,700 times 1.50 francs.

If the vessel does forty times the distance, the bounty would amount to $31,266. If the vessel is constructed upon plans previously approved by the navy department, it will receive $41,688 bounty for the above number of miles run. The cost of construction of a ship of this kind will, it is presumed, not amount to $347,400. Accordingly, the Government bounty amounts to 9 per cent. in the first instance and to more than 10 per cent. on the cost price of the vessel in the second case. Under these circumstances, if the receipts for freight only cover the expense of the voyage, the ship yields an interest of 9 to 10 per cent. on the invested capital."

In the memorial presented by English ship-owners the navigation bounties are discussed as follows:

"A French steamer of 2,600 tons, a regular liner, for instance, to the La Plata, would be entitled to a bounty in round numbers of £2,000 for the voyage, and, as such a vessel can do four voyages a year and nine voyages in the course of two years, the vessel would receive bounties to the amount of £8,000 to £9,000 a year, equal to 13 to 15 per cent. of the ship's value, which may be estimated at £60,000.

"The bounty is not confined to the French shipping trade with France, but is accorded to all French ships, even though they only ply between foreign ports. Under similar conditions the English owners are equal to any competition. They can not, however, hope to compete successfully if on the other side 13 to 15 per cent. of the working capital are refunded. A French competitor can accept freights which merely cover expenses of the voyage, and yet, thanks to the Government bounties, get handsome profit on his capital. This kind of business would prove ruinous to the Englishman, while leaving a handsome margin to the Frenchman.

"It is no exaggeration to assert that before the expiration of a year after the promulgation of the French bounties bill, the French merchant service will receive a considerable augmentation, and that it will share with England the transport trade of the Atlantic, as also the trade with South America, East India, Australia, and other British colonies. We will not depict the consequences of this. The bounties are said to constitute a compensation for certain burdens and duties imposed upon the respective circles. The recipients, however, view them in the right light, viz, that of State aid which will enable the French owners speedily to establish and develop a great merchant navy so that the shipping transport trade may be carried on to a larger extent than hitherto by French vessels, and in order to create for France a powerful navy which may prove of effective service in time of war."

That the suppositions and calculations from which the above-quoted opinions proceed are universally shared in French shipping circles, is shown by the zeal with which people in France are hastening to utilize the privileges of the new act.

According to all reports received, an extraordinarily increased activity has already manifested itself in the ship-yards of important French ports. In like manner, every thing is being done on all sides to establish new lines or to enlarge and extend the existing ones. A further consequence of the new law is the establishment of a credit institute (the Crédit Foncier

Maritime de France) with a capital of $4,825,000, whose object is to give a new impetus to ship-building and the shipping trade by granting loans to be amortized on ship mortgages and by other means.

The system of navigation bounties formed the chief point of the entire debate upon the law, and it was on this question that the exponents of the various theories as to the economic duties of the State most distinctly assumed opposite sides. To be sure, there was a unanimous understanding on all sides that something must be done for the French merchant marine, and that this must exceed what is intended to be done by article 4 of the law in the way of bounties on ship-building. In all of these arguments reference is made to the necessity of the revival of the French merchant marine for and by France.

There is a desire to prevent any diminution of the 400,000,000 to 500,000,000 francs profit on freights which the transport trade of the French merchant service annually yields, and points to the example of England, which, with a shipping of 8,000,000 tons and with a profit from freights of about 2 milliards, can look calmly at the deficits in the trade balance.

It is further complained that the French flag is inadequately represented in distant waters, and it is admitted that both French industry and commerce from and with France suffer in consequence, for the "merchant service," they say, is the handmaid of all industries, of agriculture and commerce. On the day the freight trade is given over to foreigners a mortal blow will be dealt to all the industries of the country. It would be an anomaly, from a national stand-point, to cede the transport trade to industrial rivals. In choosing these to export home products people expose themselves to all kinds of foul play, not only in competition, but also to adulteration of goods. Protests are made against considering the question of the merchant service only from the merchant's point of view, or from the egoistic point of view of the shipping agent, who applies to a foreign flag for the chance of an ephemeral profit. Members were reminded that it was the merchant service and its captains who established offices in foreign countries, and who create profitable relations between France and those countries by their establishing shipping trades at home on the strength of the connections they had formed abroad. The shipping trade, it was argued, was not merely a transport trade, for the master of a vessel when abroad, if unable to get a return freight otherwise, will eventually undertake a commercial transaction on his own account. These masters of ships were the best commercial travelers for the over-sea trade.

It was impossible to regain foreign markets once lost by the aid of foreign agents and negotiations. Direct connections must be maintained with distant lands in order that French influence, French commerce, and French products gain a firm footing by the aid of the French flag. For this reason it is intended to assist the French merchant service, and also with a view of expediting the transition from sailing to steam navigation so as to place it on an equal footing with such other flags as are further advanced in this respect.

The only material difference of opinion was as to whether the proposed measures of ship bounties would answer the desired purpose. Even those opposing the navigation bounties do not hesitate to offer compensation for this in the shape of bounties for ship-building to exceed those provided by article 4 of the law. The following remarks, passed by two leading deputies during the debate, which considerably contributed toward carrying the measure, may be quoted as characteristic of the narrow limits in which the opposition moved. Both deputies are free-traders. The one who advocated navigation bounties said, "I am a radical and a free-trader, but as occasion requires I yield in political or economic matters, because it is our duty to care for the requirements of France and her interests." And the other member, who rejects navigation bounties on principle, says, "disputes about theories and doctrines are all very well for books, periodicals, and newspapers, but matters are conducted otherwise in Parliament, where members agree and consult with one another. Each one contributes something of his own, and the result is that some point is reached, which perhaps may not satisfy all, but yet is as much as should be expected from the State."

It is true there was no lack of objections on this occasion from the representatives of the extreme advocates of non-interference in economic questions against any kind of State aid. It was pointed out that if this system of subsidizing private enterprises were commenced, others would follow suit, and this might prove ruinous to the public exchequer. The principle of free-trade, it was claimed, is opposed to such bounties; that the spirit of enterprise of French ship-owners would thereby be paralyzed, the system of routine promoted, and that if France is desirous of and able to maintain a powerful mercantile navy the same should be ascertained without resorting to artificial means.

The French Parliament was not impressed by these and similar utterances, more particularly as regards the Senate, as was shown when the bill came to the vote, for the latter chamber almost unanimously passed the measure, including the article on navigation bounties.

Objections to the bill, emanating from the conflicting interests of certain French sea-ports, had also been raised. The report of the parliamentary commission, appointed to prepare the draught of the bill, in dealing with these objections, which were subsequently withdrawn when the matter came on for debate, expressed itself as follows:

"There are convictions in which reason alone does not determine the case; and among the most powerful of these stands foremost the spirit of local interest, with its train of traditions, oppositions, and suppositions. This is the party whose few representatives still oppose us. Their position is one of consequence, and justly so, for they are the chambers of commerce of Marseilles and Bordeaux. * * * We have shown, in the course of our discussions, how much the trade and commerce of a nation are identical with its rule of the sea, and how they generally fall off and decline together. * * * Free forms and free ports have furnished more than one example in support of this, and whenever history has shown them to us as powerful, wealthy, and honored, so often have they sought and found their purpose in a maritime trade carried on by foreigners who stood in their pay."

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"The port of Antwerp was extended and finished, and was to become the greatest harbor of the north, and the rendezvous of the whole world; all flags were to fly there, with the single exception of that of Belgium. What weight would the voice of the Antwerp Chamber of Commerce have under such circumstances, if it were to be taken in the matter of a national merchant marine. If Belgium had again to deal with this question, the Belgium Chambers would take their opinions from another source, and they would consider the opinion of Antwerp as no longer sufficiently impartial.

"It is not a similar question in the case of the mighty commonwealth of Marseilles. The undisputed queen of the great basin of the Mediterranean by tradition, possession, wealth, and capacity, this city sees its preponderance, and may grow in proportion as the merchant navies of the second order prove more powerless in the same sphere. The mercantile navies of Italy, Greece, and the Levant bring her their tributes of subjection, and it is this very subjection which makes them compulsory frequenters of this extensive emporium. We may assert, without fear of contradiction, that both in Marseilles and Antwerp local interests have gained the upper hand over the national spirit.

"Nor is Bordeaux, with its chamber of commerce, a friend of shipping bounties. Once upon a time this port of the Gironde shone in full splendor in the time of the colonial charter, when Duplers and his followers founded French India. When our colonial power was lost, the hidden wealth of the vine-productive soil was revealed. New sources of wealth presented themselves, from the abundance of which every thing was exclusively to be drawn. A certain and permanent market was wanted, and hence the extravagantly cultivated free-trade ideas, which adopted the theory of productive capacity on a national scale, and in consequence of this accepted as a matter of course the downfall of that extensive shipping trade which had once been the glory of the city and the wealth of its citizens.

"Was the patriotism of Bordeaux happily inspired in laying such a stress on its pet ideas? Did it not, half unconsciously, follow those more speculative and practical ideas of the Gironde which are as directly opposed to local interests as to national ones? In matters of national economy, to which the merchant service in France belongs, not as a mere fraction, but as its most perfect exponent, all interests are identical, with the reserve that the one interest shall not stop, divert, and check the other currents. Hence local interests are a dangerous weapon which will always recoil on those who are rash enough to make use of such."

The question of the effect of the law in international relations was the subject of animated discussion in the French Chambers. On the one side it was pointed out that subsidies to the French flag in the form of bounties were contradictory to international treaties on the equality of other flags in French ports. This system would lead to diplomatic difficulties and reprisals; other countries would not calmly look on, until French ships, with the assistance of bounties accorded to them, contested in foreign ports with the native vessels for freight. This law with its navigation bounties, especially with its limited period of ten years, would not prevent England underbidding French freight rates. The French flag would at the expiration of this period be ruined, and this would appear to be easy on the part of a wealthy and powerful trade as opposed to a feeble and ailing one, etc.

On the other side it was insisted that no right of treaty and no international principle was opposed to the State aid granted to the French flag in the form of bounties. All that was agreed, in international treaties, was that foreign ships should go in and out of French ports upon the same terms of the customs legislation and international right as French vessels; nothing more had been promised than that no other and heavier dues should be levied on foreign ships than on French vessels. The only justifiable reprisals which could be made abroad would be the introduction of similar bounties to those of France. The danger, however, in this respect was not great, for other nations had not always such flourishing budgets as France, and in particular there was no need to be afraid that Germany or Italy would propose any such measures to their parliaments.

As far as that is concerned, all that could be urged against the bounties proposed by this law were equally applicable to the mail subsidies. No objection had, however, been raised from any quarter to the latter; on the contrary, the same system had been pursued in all other countries. Indeed, other countries, as a rule, had taken the lead of France in the path she had just entered in manifesting a national interest in the mercantile navy by assisting it with sundry privileges.

On the part of the Government this question of international right had already been considered when discussing the above-mentioned question of extending the navigation bounties already recorded to the over-sea trade and to the larger coasting trade (European coasting). It was argued that if France at the present moment were to allow bounties to vessels plying in the greater coasting trade in European waters, the results would be the impossibility of entering into negotiations with a view to treaties with European powers. No complications could arise from granting bounties to ships sailing to distant waters, when France had no navigation or commercial treaties. But this was not the case in European waters. In the latter case France would be unable to maintain the existing treaties or conclude new ones. For the other countries could not view these bounties in the same light as the subsidies to the postal services, for these latter were granted in virtue of special compacts, which sometimes imposed very onerous terms.

How important a link the postal subsidies form in the chain of privileges granted by France in the national interest to its merchant service is shown by the enormous sum of about $4,600,000, which is annually expended by the State for the purpose. These subsidies are distributed as follows:

Line to Corsica	$72,375
Mediterranean to Brazil, La Plate	845,776
New York and Antilles	1,922,010
To India and China	1,654,593
To Algiers and Tunis	95,245
Total	4,589,999

The foundation to a further subsidized French steam line has been laid simultaneously with the promulgation of the law for granting general privileges to the merchant service. In consideration of the circumstance that the French flag is not adequately represented in Australian waters; that the share of the French trade to and from Australia does not assume dimensions corresponding to the importance of France; that new markets were to be opened there to French industry; and that the present moment was a most favorable one, as France had gained a footing in the exhibition of Sydney and Melbourne; in view of all these circumstances it was determined to open a subsidized line of steamers from France to Australia, with a communication to New Caledonia. This line would, for the present, arrange for thirteen voyages there and back, per annum, and receive for this a subsidy to the amount of $636,900, it being reserved later on to double the voyages with a corresponding increase of subsidies. The following paragraph from the general motives of the bill regulating the allowance of subsidies deserves mentioning:

"England already has two steam-ship lines to Australia; Hamburg will also shortly open one. The competition is becoming general, and France claims a direct share in this promising enterprise. In order to yield practical results, these enterprises can not dispense with Government aid, and this has always been afforded in a productive manner as soon as it was a question of paving the way for our traffic in distant markets. England has given the example of using mail steamers as the pioneers for the creation or expansion of commercial relations."

Some figures were discussed in alluding to the effects of the opening of subsidized French lines. Thus, for instance, it was argued that the French trade with Brazil, the Argentine Republic, and Uruguay only amounted to $38,600,000 before the opening of the subsidized steam lines from Bordeaux to these countries, whereas it had afterwards increased by 237 per cent., and accordingly reached $91,675,000. The entire French trade with eastern Asia did not exceed $18,721,000 before the opening of the postal service to India and China; of this $12,931,000 was with British India and only $1,833,500 with China, Cochin China, and Oceanica. In 1879 this trade reached the sum of $77,290,000, and Lyons had become the emporium in Europe for Chinese and Japanese silks.

In the discussion regarding other countries, arising from the debates on the French bill, England occupies the first place, as an example of the interest and steps taken there for the protection of her merchant service, and also with regard to the manner in which the bounties about to be introduced in France would be judged from the stand-point of international law.

In respect to this latter, mention was made in the debates that voices had already been raised in England claiming that these bounties were considered as a violation of the right to national treatment due to the English flag, and that the case would lead to measures of reprisal. In the meanwhile, according to a correspondence between the British foreign office and the British ambassador in Paris, submitted to the English Parliament, the British Government has taken a position in view of this portion of the question. It appears that, in the opinion of the English Crown law officers, these bounties do not in precise terms constitute a violation of the stipulations of the commercial treaty between France and England. At the same time they are considered as contrary to the spirit and intention of such treaties, and, it is added, this view will be borne in mind in any new commercial negotiations with France.

With regard to the other part of the question, as to how far England has already progressed in advance of France in granting privileges to its own mercantile navy, a special stress is laid upon one point in the parliamentary debates, namely, members were reminded that in England the equipment of harbors with the necessary buildings and improvements of every kind was not carried out by Government and out of public moneys, as in France, but by private companies or independent corporations, who, accordingly, had a right to levy harbor dues on their part for the interest and paying off of the invested capital. In these harbor dues, which amount to the important sum of from $19,300,000 to $22,195,000 a year, and represent about 48 cents on every ton moving in English harbors, or on more than 40,000,000 tons, there is the strange arrangement that English vessels enjoyed an advantage over French ones, as the former did not contribute to these dues in equal proportion to the latter. This was done either by the exemption of harbor dues being limited to native vessels belonging to certain English ports, or by means of a subscription, which in the nature of things was only accorded to English vessels having regular intercourse with the port, but which, under certain conditions, was extended even to English ships in general, to the exclusion of foreign flags.

Remonstrances had been raised, it was said, against this inequality of treatment towards the French flag, but so far to no purpose. Remedy could only be obtained by the British Government taking the harbor dues in its own hands, for at present the management and levying of these dues depends upon private companies or corporations. With regard to the steps, in this respect, which had been taken and contemplated on a former occasion, nothing had as yet been done. In this it may be seen that what with the considerably lower dues levied indiscriminately in French ports on French and English ships, English navigation met with a far more favorable treatment in France than *vice versa*.

Attention was also drawn to the large postal subsidies which Great Britain grants to mail steamers. The total amount of public moneys which England has already applied in this respect in subsidizing her shipping and trade in the course of years is set down at over £40,000,000. It is mentioned by way of example that on the opening of the Suez Canal the subsidized French mail boats from the Mediterranean proved to be too dangerous competitors for the English line to India; the English subsidy was on this account at once increased by £100,000.

The following are the several amounts set down in the way of postal subsidies for the fiscal year 1879–'80 according to the report of the English postmaster-general:

For the line to Brazil, La Plate to Chili, from Southampton	£4,878
Liverpool	5,656
East Indies, China, and Japan	417,325
Aden, Zanzibar	10,000
Table Bay, Zanzibar	20,000
United States of America	57,447
Halifax, Bermuda, and St. Thomas	17,500
The Pacific	5,706
The West Indies	85,188
The West Indies	991
Liverpool and Puerto Cabello, Tampico and Sta. Martha	1,132
Belize and Jamaica	3,500
Belize and New Orleans	3,080
Other amounts	9,253
Total	641,656

The considerable subsidies allowed by the English colonies mail lines are not included in this statement. According to official reports from Sydney they amount, for example, to £207,500 from the Australian colonies alone.

With regard to the United States of America, special reference was made to the legal practice in force there since 1872, according to which an annual Government duty of up to $10 per ton may be allowed for the construction of large ships for the over-sea trade for five years in succession. The compensation paid by the United States of America in one of the last year's budget for transatlantic postal service amounted to $196,684. In the meanwhile an amendment has been adopted in the Committee on Post-Offices of the Senate of the United States appropriating $1,000,000 for the opening of American steam mail lines.*

Further comprehensive Government measures may be expected for the protection and improvement of the American over-sea mercantile navy, according to the programme which was developed by Mr. Blaine in January last in the Senate at Washington, who has in the meanwhile been appointed Secretary of State for the United States.

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*Of which only about $25,000 was paid to United States ships, or about one-half paid by Germany. The amendment referred to by Prince Bismarck was defeated February 14 last.

In Italy the promulgation of the French mercantile marine law has been the special occasion of revising the question of measures for the improvement of the Italian merchant service. With a view to meeting the difference of treatment resulting from the French law for the Italian shipping in the competition for trade, the draft of a law of parliamentary initiative was introduced in the sitting of the Chamber of Deputies of February 2, 1881. This proposed measure, adhering strictly to the French law, and agreeing essentially with regard to the amount of the bounties provided by it, demanded also in Italy Government aid to ship-building and navigation. The necessity, under the existing circumstances, of having recourse to such measures was also acknowledged by the "free-trade" side of the house, it being presumed that endeavors would be previously made by diplomatic intervention on the part of the interested powers against any such violation of international treaties—if not of the precise terms, still of their spirit and intention. This matter, however, was not considered as ripe for discussion in every direction. It was decided by the Chamber of Deputies that further steps would depend upon the investigation of a commission of inquiry, which is to report upon the present state of the Italian merchant service, and suggest the fittest and most efficacious means for securing its future and promoting its prosperity.

This commission of inquiry will consist of five senators, five deputies, and five members to be nominated by royal decree. The work of this commission and the report thereon are to be completed within four months and submitted to the Government, who will take prompt action thereon as may be necessary, and in accordance with obligations assumed.

Italy, according to the official reports of 1879, expends $1,593,214 on postal subsidies.

The Austro-Hungarian Empire, Belgium, and Holland, respectively, expend $1,034,844, $157,436, and $63,117 on similar subsidies.

Germany pays in the over-sea trade to the participating German steam lines a sum in proportion to the weight of the parcels forwarded. At present these allowances amount to $47,000 in round numbers.

It is deserving of serious consideration whether under the circumstances as given German shipping and German commerce can hope for further prosperous developments as against the competition of other nations aided by public fund and assistance.

STEAM-SHIP LINES.

[From a report by Commercial Agent Smith, of Mayence, September 1, 1885.—CONSULAR REPORTS Vol. XVII, No. 57, page 166.]

Closely related to the question of colonial dependencies is that of subsidized lines of steamers to various parts of the world—to East Asia, Australia, and the Mediterranean—of which the Government at Berlin is now a zealous advocate, and it has centered upon an experimental policy in this direction, which, it is hoped and expected, will in time bear rich fruit. In this enterprise also it seems to meet with the hearty approval of the people. Germany is fully alive to the spirit of competition pervading the nations of all the world, and to the rivalry prevailing among them for the leading place in the enjoyment of the world's commerce, and is equally sensible of the need of markets for its surplus products, which will ward off disquiet at home among its working classes and keep busy its capitalists and manufacturers, and, moreover, enable it to more easily bear the strain which a large military establishment imposes upon it, and is disposed to exert itself to get these markets. Under the old political system of divided interests under which the states now composing the German Empire lived and struggled, the grasping after imperial dominion and extensive commercial relations with all quarters of the globe was not possible; but now the people are beginning to feel the strength of their might and the compactness of their union, and to be animated by a common national fervor, which seeks to make its influence felt everywhere. The competition going on in the world now is so great and the gains of trade so slight that it depends largely upon celerity, regularity, and cheapness of the means of intercourse between the nations whether trade shall thrive with them; and the German argues that a land which does not possess its own lines of communication with foreign ports must ever disadvantageously contend with its more enterprising and better equipped rivals. He therefore subsidizes, and is waiting the result on his first investment—4,000,000 marks ($950,000) per annum.

GERMAN STEAM-SHIP SUBSIDIES.

[From a report by Consul-General Mueller, of Frankfort-on-the-Main, November 30, 1886.—CONSULAR REPORTS, Vol. XVIII, No. 61, page 285.]

The convention between the German Government and the North German Lloyds, of Bremen, respecting the subsidizing of mail services to be undertaken by the latter, has received official sanction. It includes thirty-four articles. Lloyds bind themselves to establish and work the following lines for fifteen successive years:

(*a*) For the trade with East Asia: (1) A line from Bremerhaven to China, by way of a Dutch or Belgian port, (the choice of which lies at the discretion of the imperial chancellor), Port Said, Suez, Aden, Colombo, Singapore, and Hong-Kong, to Shanghai; (2) a junction line from Hong-Kong by way of Yokohama, Hiogo, a port in Corea, whose choice likewise rests with the chancellor, and Nagasaki back to Hong-Kong.

(*b*) For trade with Australia: (1) A line from Bremerhaven to mainland of Australia, by way of a Dutch or Belgian port (to be chosen by the chancellor), Port Said, Suez, Aden, Tschagos Islands, Adelaide, Melbourne, to Sydney; (2) a junction line from Sydney, by way of the Tonga Islands, to Apia (Samoa Islands) and back to Sydney.

(*c*) A branch line from Trieste, by way of Brindisi, to Alexandria. The extension of the line (*b*, 1), from Sydney to Brisbane, remains with the North German Lloyds.

The imperial chancellor reserves to himself throughout the power to approve or disapprove of the arrangements for voyages, times, speed, postal dispatches, as well as the forwarding of passengers. Thirteen voyages each way are to be made yearly by the East Asian and Australian lines at intervals of four weeks, and twenty-six voyages are to be made by the Mediterranean line in each direction to the junction of the lines to and from East Asia and Australia. The East Asian voyages are to be made at a speed of at least 12 knots, the Australian at a speed of at least 11½ knots, and the Mediterranean at one of at least 12 knots. Co-operation with the imperial postal department for the forwarding of mails between Alexandria and Suez by rail is stipulated for, and maximum delays are fixed. Failure to observe the table of voyages without sufficient reason is punishable by penalties of from 1,000 to 5,000 marks, while delays without proper cause have a penalty of 50 marks per hour.

The Lloyds must provide five steam-ships for the East Asian and Australian lines, one for the branch line, a reserve steamer for the second line, and two steamers for the Mediterranean line, all at their own cost; and of these vessels at least six must be built specially and the three others be ready for sailing within eighteen months of the conclusion of the agreement. All the steamers must, in construction and arrangement—especially in regard to the security, convenience, and comfort of passengers—be equal to vessels running on the same line belonging to other nations. These matters are stipulated for down to the smallest details. Passengers are to be forwarded in three classes, and an experienced physician must be attached to each vessel. The chancellor can modify these conditions in respect to the branch line. The gross register of the steamers is particularly stipulated. The new vessels must be built in German yards of German material, the plans being first approved by the chancellor. The coal supply is, as far as practicable, to be produced in this country, and all the vessels must be approved by experts to be named by the chancellor, who is able to declare a ship unfit for the purposes in view.

High penalties (400 marks per day for delay in executing the contract) are fixed for neglect on the part of the contractors to carry out their undertakings. The contractors are bound to supply, within eighteen months, a substitute for a lost vessel. All steamers are to fly the German flag. The requirements respecting the forwarding of mails and the position of postal officers on ships are very searching. All receipts arising from postal service belong to the Empire. The contractors are to be fully responsible for the forwarding of the mails, and for damages arising through mishap at sea (except it be a natural occurrence) through the acts or negligence of the contractors, their employés, or ships' crews, or through the acts of passengers traveling by any vessel. The tariff for the forwarding of goods is to be the same for Hamburg and Bremen.

All persons employed in connection with the mail service are, if practicable, to be German subjects. The contractors are bound to convey officers in the service of the Empire or of states, relief crews, returned crews, either sick or time expired, together with weapons, ammunition, equipments, or supplies for the imperial navy, at 20 per cent. under the tariff. For the mobilization of the navy the chancellor has power to take over the steamers at their full value, or to hire and pay proper compensation. The sale or loan of a steamer to a foreign power must be by permission of the chancellor. The stipulations concerning the conveyance of prisoners are clearly set forth, and a complaint book is to be kept in each vessel.

The chancellor can have the service inspected through a commissioner; the regular voyages must begin at the latest within twelve months after the conclusion of the agreement, the penalty for delay being 400 marks per day. The contractors will receive a yearly subsidy of 4,400,000 marks, and must deposit a security of 500,000 marks. Without the written sanction of the chancellor the contract can neither be surrendered to others or sublet. A special understanding must be come to concerning the continuance of the contract beyond fifteen years. Should the chancellor think an alteration in the speed or number of vessels desirable, the contractor must make an additional claim accordingly. In case of disputes two arbitrators shall be chosen on each side, and they shall elect an umpire, who, in the event of their not agreeing, shall be then named by the president of the supreme court of the Hanseatic towns, and by this authority all disputes arising out of this agreement shall be settled.

It is stated that the management of Lloyds regards it as necessary to extend the increase of capital (viz, 15,000,000 marks) agreed on at the last ordinary meeting to the sum of 20,000,000 marks, and a special meeting of shareholders will be held to consider the proposal; a further proposal is to authorize the management to convert the gold thaler shares into shares in marks.

SUBSIDIZED STEAM-SHIP LINES.

[From a report by Commercial Agent Smith, of Mayence, January 8, 1887.—CONSULAR REPORTS, Vol. XXII, No. 80, p. 680.]

Last year it was the steam-ship subsidy measure, in connection with colonial undertakings, that was the great topic of discussion. This has given place somewhat to the brandy monopoly agitation, but is still a subject of great interest to the German nation. On June 30 last the first steamer of the new East Asia line was duly gotten off from Bremerhaven, with such ceremonies as were to be expected on such an occasion, and was received at and dispatched from Antwerp with corresponding éclat, making the trip from Bremerhaven to Antwerp in twenty-two hours, a gain of eight hours over the usual time; and on July 14 the first boat of the new Australian line was sent off. The ships of the first line have a speed of 11 knots an hour, so that the post from Berlin to Asia requires thirty to thirty-one days to reach Hong-Kong and thirty-four to thirty-five to get to Shanghai. Those of the Australian line have a speed of 11½ knots an hour. The post will be carried from Berlin to Adelaide in thirty-four days, to Melbourne in thirty-seven, and to Sydney in thirty-eight. At Hong-Kong a branch line is to connect, extending to Corea, and at Sydney the line is to connect with one which is to touch the Tonga and Samoan Islands. The choice of Antwerp as a stopping place is very favorably regarded by the people of the Rhineland, as the ships of the Rhine can easily connect therewith. Rotterdam was, however, preferred as being the most accessible to Rhine vessels. Antwerp was chosen in preference to Rotterdam, as it was considered that the water at Rotterdam was not deep enough for the draught of the best steamers.

SUBSIDIZED STEAM-SHIP LINES IN OPERATION UNDER ACT OF APRIL 6, 1885.

[From a report by Consul-General Raine, of Berlin, January 10, 1887.—CONSULAR REPORTS, Vol. XXII, No. 80, p. 625.]

On the 30th of June last the first steamer left Bremerhaven for East Asia, promptly followed by others steamers according to the time-tables. The results of that measure have thus far been reported as favorable. The shares of the North German Lloyd rose in a very short time from 105 to 112. Against all apprehensions, the steamers came back with full cargoes, not only for Germany, but also for other countries. A business of so-called "throughgoing (transit) bills of lading" between New York and China, Japan, etc., by the instrumentality of these new lines, has commenced greatly to develop through agents of the Bremen Lloyd in New York.

In Bremen the goods arriving from America are reloaded on board the steamers of the East Asiatic lines, which on the way home bring large quantities of tea for New York.

CONSULAR REPORTS
ON
COMMERCE, MANUFACTURES, ETC.

No. 113.—FEBRUARY, 1890.

SHORT WHEAT CROP IN THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

In previous reports I have informed the Department that the last grain crop of the Argentine Republic was destroyed by a continuation of heavy rains just previous to the harvest, and that in consequence not only would there be but little for exportation, but there might be a scarcity before the year was over to meet the home demand. The latter prediction is now being verified. There is getting to be a short supply of breadstuffs in the country, which will probably have to be met by importations before the new crop comes in, and the prices of wheat and flour have gone up to such figures that it will even now pay to import cargoes from abroad. Two weeks ago I heard of orders having gone forward for wheat from New York and Odessa. Last week I heard of charters of vessels to bring wheat from California and Oregon.

How large the deficit may be it is impossible to say, for the reason that the agricultural department of the Argentine Republic has never interested itself enough in such matters even to know the actual breadth of land in cereal crops, or the amount of the average crops raised. Even the amount required for the home demand is quite a matter of guess-work, and about all that is known in reference to a crop is learned from the amount which is exported. The fact of a deficit is argued only from the further fact that the price has gone up to such figures that it will now pay to import the article from abroad. The last circular of Messrs. Herm. Altgelt & Co., has the following on the subject:

> Some wheat has just been received from Europe, of which about 700 sacks were sold for seed. The prices paid at auction were from $13 to $13.10 per sack.
>
> The millers are expecting a fall in the present prices, but it is difficult to predict the course of the market. All will depend on the quantity which may arrive from abroad, though the

harvest is so near at hand that few houses will probably care to import wheat at the present premium on gold (200 per cent.). From various portions of the Argentine Republic, however, we have information that the wheat does not promise a very abundant crop. There appears to be a general lack of rain, but it is still early to say any thing certain in regard to the harvest.

On the subject of the deficit I find the following in the Buenos Ayres Standard of the 1st instant:

IMPORTATION OF WHEAT.

Whilst reading not a very many weeks ago the English agricultural papers, we were somewhat surprised to see that the Argentine Republic was expected to fill the deficit in the wheat harvest, as the crops of most countries promised poor returns. Whilst these lines were penned in London orders had gone forth from the Plate for several wheat cargoes to meet our own local deficit; and this is all the more amusing as we are accustomed to talk of our great wheat and maize yields year in, year out. The truth is the Plate, as a rule, can rely on only one good crop every three years, and we are now witnessing the effects of a short harvest.

Cargoes of wheat, we hear, are en route for Montevideo from all parts, and it is this expected influx that prevents any sudden rise in wheat here. Wheat is allowed in Uruguay duty free; it pays a barbarous duty in this country, so that the expected cargoes will remain in the mount till an opportunity offers to sell them here at a heavy profit. It is well known that in this market there is little or no stock of wheat in the hands of retailers or millers; the bulk is held principally by speculators or by German houses. The current market prices range from $12 for first-class to $8 for second-class wheat, and the size of the loaves retailed by bakers to the population is growing smaller every day.

Under such circumstances, is it a wonder that wheat is arriving in this market from Odessa? It appears that several millers, in view of the state of shortage in the market, contracted with Messrs. Dreyfus Freres for a score of thousand sacks of Odessa wheat at $6.70 gold per 100 kilograms, all duties paid. These wheat consignments are now arriving in the market.

The impediment in the way of great importations of wheat or flour, as you will thus see, is not only the nearness of the next harvest, but the almost prohibitive duties which they are required to pay in the custom-house. The rates are as follows: Wheat, per 100 kilograms, $1.65; flour, per kilogram, 4 cents; that is to say, wheat has to pay 7½ mills per pound and flour about 2 cents per pound. These rates were established as a new incentive to farmers, and when it was supposed that agriculture had made such progress and the harvests were so abundant that, so far from there being a lack of breadstuffs in the country, there would be an annually increasing surplus for exportation. Indeed, it seemed that the Argentine Republic was about to be a competitor with the United States and Russia in supplying the European markets. Certainly, for this year at least, very little can be expected from this country.

In view of the present situation, and in aid of cheap bread, there is a movement to greatly reduce the present tariff on wheat and flour, but nothing will probably be done until more shall be known in regard to the prospects of the coming harvest. If another shortage is probable, the Government will do something to make up the deficiency at cheaper rates than it can now be done.

It is said in some quarters that, disheartened by the bad results of the last harvest, the farmers have sown less wheat this year than heretofore; but from what I can learn, I think the breadth is considerably larger than last year. Some persons may have put down less in wheat, but I estimate that there are fully fifty thousand more farmers in the country this year than there were a year ago, and a very considerable number of new agricultural centers or colonies have been established.

The present prices of wheat in this market are from $10 to $12 currency per 100 kilograms, that is to say, about $5 to $6 gold per 220 pounds, while flour is from $1.50 to $2.20 currency per 10 kilograms, that is to say, from 70 cents to $1 gold for 20 pounds. These high rates are teaching the Argentine people the virtues and the value of corn meal—a lesson thus far they have been very slow to learn.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, October 2, 1889.

ARGENTINE DUTY ON IMPORTED HORSES.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

In adjusting the tariff for 1890 the Argentine Congress has just voted to place a duty on the importation of fancy and thoroughbred horses. The amount of this duty is for the present fixed at 25 per cent. on the valuation. There was a strong effort in the Senate to defeat the proposition, on the ground that such importations were invaluable for the purposes of improving the native stock; but the Government is in need of an increased revenue, and all other considerations had to give way. In spite of the fact that the Senate committee had reported against the proposition as voted by the Chamber of Deputies, the duty was sustained and carried. As showing the views of different Senators on the subject, I give the following brief synopsis of the debate:

Señor Rodriguez said that the Chamber of Deputies had imposed a duty upon all thoroughbred horses except those for heavy draught, but the committee had thought it best to suppress the duty altogether, as it is not desirable to throw impediments in the way of importing animals for improving the breeds of animals in this country.

The minister of finance supported the duty as sanctioned by the Chamber of Deputies.

Señor Rodriguez said that a duty of 25 per cent. on horses would not prevent the display of luxury in the country or gambling on races.

Señor Mendoza said it is a mistake to tax the race-horse, for he is the most perfect of all and serves to improve the breed of all kinds of horses, even those which are excepted from the tax. We have not sufficient good horses in the country, and the four breeding establishments of Casey, Kemmis, Luro, and Bosch do not altogether produce eighty horses a year. The country requires many more thoroughbreds for improving the present breeds. If luxury is to be suppressed, let the duties be increased upon all articles of real luxury and ostentation, but this is not proposed.

The minister of finance said that the importation of thoroughbred horses was only one of the causes of the financial crisis.

Señor Mendoza asked why the minister did not propose a heavy duty on carriages.

The Minister said that they were already heavily taxed, and that the country did not require prohibitive duties to be imposed. Moreover, the duty would not change the conditions of cows and horses in the Republic; this could only be done by steady work. Cattle are already protected in every way, and yet the Rural Society admits that there are not one thousand "novillos" (bullocks) in all the country fit for exportation to Europe. This is because there is not enough hay or grain for feeding them, and because sufficient attention is not paid to the rearing and fattening of the animals. The same thing will happen with thoroughbred horses; they may run races, if they be taken care of in stables, but the breeds will not be improved until all the elements have been acquired which are necessary for the purpose.

Señor Mendoza said that the minister was mistaken about the novillos. Let him provide railways to bring them from San Juan, Mendoza, and San Luis, and hundreds of thousands of novillos could be obtained for exportation.

The Chamber then divided, and the duty of 25 per cent. on all horses, except those for heavy draught horses, was carried by 9 votes against 7.

It is no secret that the strongest influence in favor of the duty was exerted by those who during the last few years have been most actively engaged in the importation and purchase of fine stock from Europe and the United States, and who now, having secured fine studs of thoroughbred horses, are no longer in favor of free importations.

The duty will go into effect on the 1st of January next, with 1 per cent. additional under a supplementary law. On what basis the official valuation of different blooded animals is to be made has not yet transpired. Unless a uniform valuation for all imported horses is agreed upon, it will be somewhat of a puzzle to know how they will be classed. Each importer will be confronted on the arrival of his thoroughbred with two conflicting considerations—one to pay as little duty as possible and the other, for the purposes of sale, to make out his horses to be as valuable as possible.

As there is now a large trade here in imported horses from the United States, and as a number of importers are now at home buying up stock for this market, I have hastened to advise them through the Department of the new conditions on which their importations must be made.*

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, November 18, 1889.

BRAZILIAN-AMERICAN TRADE.

[Translation of statistics prepared by the Brazilian Government at the request of Minister Adams.]

GENERAL DIRECTORY OF STATISTICS OF THE MINISTRY OF FINANCE,
Rio de Janeiro, November 4, 1889.

This department can only give information regarding the following interrogatories contained in the note of the American legation, dated August 28:

IMPORTS FROM THE UNITED STATES.

"Fourth. What is the proportion of direct imports from the United States into Brazil, and what is the proportion of those imports via Europe?"

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* Given to the press on receipt at the Department.

During the last two financial years the direct imports from the United States were of the following values: Reis 18,251,611$000 for 1886–'87, reis 11,795,428$000 for 1888.*

From these figures we see that the official value of the former imports was, with slight difference, sustained during 1888, as the financial year of 1886–'87 contained three six-monthly statements (July of 1886 up to December of 1887, inclusive), and, making a deduction of a third, correspondent with the six months extra, from the amount of reis 18,251,611$000, there would be a remainder of reis 12,167,891$000, the difference being only reis 372,463$000 more than for the financial year of 1888.

We have not yet obtained complete maps of both financial years, and, as these returns are in some cases of provinces that do a large business with the United States, it is highly probable that this apparent difference may be not only made up, but that there will be a balance in favor of the latter year when all the figures come to be made known in each of the financial years above indicated.

It is impossible to answer with absolute certainty the second part of this interrogatory, as the statistics of our departments of finance do not take into consideration or register other facts than the port of embarkation of goods imported by any vessel, but the presumption is strong that all the commercial trade between the United States and Brazil is direct.

During the financial year of 1886–'87 the imports of this country were effected in 485 vessels with a tonnage of 374,423, those of 1888 in 294 vessels of 283,603 tons. Of the first 191 out of 485 were American with 222,173 tons, and of the second 294,129 were American with 170,147 tons. All of these came direct from the United States.

EXPORTS TO THE UNITED STATES.

"Fifth. What is the proportion of Brazilian exports to the United States in American bottoms, and what in foreign vessels?"

The maps existent in this department relative to the last two financial years give us the following figures of the exportation from Brazil to the United States: 1886–'87, reis 130,703,400$000; 1888, reis 92,542,765$000.

These figures may be considerably augmented, as already explained, by the furnishing of statistics by some of the fiscal departments in the provinces, which trade extensively with the United States, because many of the maps received do not register the destination of articles sent in great quantities to the United States, such as rubber, sugar, etc.

EXPORTS BY FLAG.

We can not discriminate the quantities exported in American vessels from those sent in European vessels, because the instructions by which we are guided in this service do not contain such specifications; therefore, the data which we possess only indicates the amounts exported to each country and not those exported by each vessel; but, desirous of satisfying as well as possible the information requested, I offer the following table:

Our exports to the United States during 1886–'87 were shipped in 632 vessels with 548,680 tons:

Flag.	No.	Tons.	Flag.	No.	Tons.
English	287	242,847	Belgian	15	20,453
Norwegian	125	73,748	Italian	3	1,457
American	96	154,303	Danish	3	1,443
German	31	28,554	Austrian	3	1,187
Portuguese	28	13,229	Dutch	3	709
Swedish	19	7,765	Argentine	2	839
Brazilian	16	1,891	French	1	255

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* This is equal to $6,440,070. According to our own customs returns our direct exports to Brazil during the same year amounted to $7,137,000, which bears out the Brazilian official statement regarding the incompleteness of their returns.

Or, 96 American with 154,303 tons, and 536 foreign with 394,377 tons, making a total o 632 vessels with 548,680 tons.

In 1888 our exportation was effected in 497 vessels, having a tonnage of 498,227, as follows:

Flag.	No.	Tons.	Flag.	No.	Tons.
English	259	236,554	Italian	7	6,061
American	106	142,066	Brazilian	5	1,507
Norwegian	46	57,460	Dutch	4	2,195
Portuguese	27	6,165	French	2	3,521
German	26	30,760	Argentine	2	1,361
Belgian	12	5,792	Austrian	1	829
Swedish	9	3,710	Costa Rican	1	246

Or, 106 American with 142,066 tons, and 391 foreign with 356,611 tons, making a total of 497 vessels with 498,227 tons.

EXPORTS SUBJECT TO EXPORT DUTIES.

"Sixth. What are the articles of export that are taxed by Brazil, and what is the amount of revenue that is produced by that tax?"

Articles.	Duty.	Articles.	Duty.
	Per cent.		*Per cent.*
Rum	9	Brazil-wood	9
Hair (horse)	9	Piassava (for brooms)	9
Cocoa	9	Coffee, wool (brute)	7
Chestnuts	9	Gold, silver	2½
Hides	9	Gold (melted or in bullion)	1½
Tobacco (and prepared articles)	9	Diamonds	1
Gum (elastic)	9	All other products not exempted by law	5
Timber (for construction)	9		

Duties on exports to the United States produced: In 1886–'87, reis 8,795,130$000; in 1888, reis 6,164,117$000.

The whole amount collected from exports from Brazil was: In 1886–'87, reis 25,656,441$000; in 1888, reis 14,234,815$000.

All of which figures are subject to changes consequent on the want of proper maps, as above explained.

As to the production of silver, treated of in the interrogatory No. 7, the ministry of agriculture alone can give information. There is no data in this department.

FRANCISCO JOSÉ DA ROCHA,
General Director.

AMERICAN TRADE AT RIO DE JANEIRO.

[Statistics prepared by Custom-house Inspector Baron.]

In reply to questions in subjoined copy of note from the American legation in this city it is my duty to declare the following as to the port of Rio de Janeiro:

The port of Rio de Janeiro communicates with other foreign ports by means of the following regular lines of steamers: Company Hungarian of Maritime Navigation, Company Austro-Hungarian of Trieste, Company des Chargeurs Reunis, Company des Messageries Maritimes, Company National of Steam Navigation, Company Italian La Veloce of Genoa, Company Steam-packets between Hamburg and South America, Company Liverpool, Brazil, and River Plate (some steamers in this line sail under the Belgian flag and come from Antwerp), Company Italian of Florio & Rubattino, Company New Zealand Shipping of London, Company German of Bremen, Company Pacific Steam Navigation, Company Royal Mail Packet, Company Shaw, Savill & Albion of London, Company General of Maritime Transports of Marseilles, Company United States and Brazil Mail Steam-ship. In all seventeen lines of steam-packets. As to the number of steamers owned by each one of these companies, their tonnage, capacity for carrying passengers, number of trips, etc., their respective agents can alone give information.

The imports from the United States, as well as those of other countries, are brought altogether direct, because in statistical tables prepared by the department of finance no attention is paid to the nationality of merchandise but only to the point of its last shipment.

During the last five fiscal years the value of imports to the United States has been:

	Reis.
1883–'84	7,633,466$695
1884–'85	7,731,272$611
1885–'86	7,213,029$647
1886–'87 (18 months)	12,933,529$854
1888	7,322,074$361

Instructions that we observe do not oblige us to discriminate direct exportation by the ships that carry the goods, but by the countries to which they go.

Exports taxed by the Brazilian Government are as follows: 9 per cent. on rum, horse-hair, cocoa, chestnuts, hides, tobacco and articles prepared from it, gum elastic, timber, Brazil-wood, and piassava (rushes for brooms); 7 per cent. on coffee, yerba, wool (brute); 2½ per cent. on gold and silver in duct, bars, or manufactured; 1½ per cent. on gold in bullion or melted in the mint; 1 per cent. on diamonds, rough or cut; 5 per cent. on all other products not specially exempted by law and found in tables annexed to laws No. 2640 of September 22, 1875, and No. 3140 of October 30, 1882.

The revenue collected from export duties by the custom-house of Rio de Janeiro was as follows:

	Reis.
1883–'84	5,877,376$091
1884–'85	7,453,698$426
1885–'86	6,323,153$569
1886–'87 (18 months)	10,410,490$068
1888	6,663,383$859

I ignore the amount of the silver production during the past twenty years. The exportation of silver for the last ten years was as follows:

	Grammas.
1878–'79	323,670
1879–'80	74,225
1880–'81	62,724
1881–'82	122,692
1882–'83	92,449
1883–'84	86,023
1884–'85	54,056
1885–'86	308,791
1886–'87 (18 months)	4,769
Total	1,129,579

The Secretary,
JOSÉ GUSTAVO DA COSTA AZEVEDO.

THIRD SECTION OF THE CUSTOM-HOUSE,
Rio de Janeiro, October 24, 1889.

CHILIAN COMMERCE.

REPORT BY CONSUL ROMEYN, OF VALPARAISO.

Pursuant to usage, I have the honor to report to the Department at, approximately, the close of the current calendar year the condition of affairs in this consular district as to trade and commerce.

Instead of tabulating the results obtainable from miscellaneous sources and by special inquiry, I have thought that I can no better inform the Department on these matters than by transmitting a résumé from the Chilian Times of the facts obtained from the official pamphlet, recently issued by authority of the Government, as stated by Señor Torres, official statistician, respecting the increase and decrease of foreign imports and exports for the last year.

It will be observed that so far as the United States are concerned the decrease is noticeable.

The arrival of vessels at this port under the United States flag has been greater in number this year than for many previous years. They are, since my last report, December 15 last, as follows (it will be observed that no armed vessels of the United States have for that period visited this port): Ships, 11; barks, 20; barkentine, 1; steamer (survey), 1; steamer (tug), 1; yacht (sailing), 1.

On the whole, the country is generally in a more prosperous condition than before. I do not share in the opinion expressed in his report by Señor Torres on the probable fall in the price of gold or of exchange in Europe. The depreciation of the Chilian paper currency is due to a variety of causes, and it would not seem that the output of nitrate of soda and of the precious metals would materially affect relative values.

JAS. W. ROMEYN,
Consul.

UNITED STATES CONSULATE,
Valparaiso, November 22, 1889.

REVIEW OF CHILIAN COMMERCE.

[From the Chilian Times (Valparaiso), November 9, 1889.—Inclosure in Consul Romeyn's report.]

We have received a copy of "Estadistica Comercial de la Republica de Chile for 1888," which, in addition to the customary trade statistics, contains an able and interesting introduction from the pen of the chief statistician, Señor Juan B. Torres. The trade of the country has continued to increase steadily during several years past, and the year 1888 outstripped very considerably all its predecessors. The total value of the foreign and coasting trade amounted to $324,655,483, being an increase of $36,750,706, or 12.76 per cent., as compared with the preceding year. Of the former sum the foreign trade figured for $140,691,931, and the coasting trade for $183,963,522. The total value of the general trade—by which term is meant imports for home consumption and in transit and exports to foreign countries—amounted to $140,691,931, being an increase of $20,217,654 over the preceding year. The special trade, which includes imports for home consumption and exports of home produce, amounted to $133,807,633, being an excess of $25,626,813 over 1887.

The total value of imports amounted to $60,717,698, or $12,068,836 more than in 1887. Out of fifteen classifications into which this branch of the trade statistics of the country is divided three only showed a slight falling off as compared with 1887. The largest increase was in alimentary articles, represented by no less a sum than $3,310,386. Then follow raw materials for $2,286,272; machinery, $2,267,720; railway and telegraph materials, $1,356,061; textile fabrics, $1,212,730; silks, jewelry, etc., $1,034,610; household effects, $621,649; and for smaller sums articles connected with the fine arts and science, wines and liquors, drugs, arms, ready-made clothing, etc.

The following table shows the value of the imports received from different countries and the percentage of increase or decrease as compared with 1887:

Nations.	1888.	Increase.	Decrease.
		Per cent.	*Per cent.*
Great Britain	$26,351,141	28.77	
Germany	14,046,577	20.75	
France	6,181,513	12.37	
Argentine Republic	4,345,497	95.99	
United States	3,133,173		3.36
Peru	3,057,854	14.50	
Brazil	682,557		8.66
Italy	680,546	33.52	
Uruguay	572,950	57.82	
Ecuador	309,735	82.98	
India	247,051		26.18
Holland	238,991		
Spain	227,475		5.42
Belgium	138,118	18.52	
China	104,914	0.88	
Polynesia	86,218		2.50
Costa Rica	60,937	66.90	
Australia	27,818		
Paraguay	21,666	257.82	
Colombia	20,217	779	
Guatemala	13,082	25.13	
Portugal	6,736		54.70
Bolivia	1,000		70.52
Whale fishery	161,929	4.07	
Total	60,717,698	24.85	

The imports from Great Britain and Germany go on in an ascending scale, but the increase in 1888 was in favor of the former country as compared with the latter. In 1887 the percentage of increase corresponding to Great Britain was 21.64, while that of Germany was 39.36. The percentage of increase corresponding to France was 12.37, against 5.03 in 1889. This nation continues to hold the third place in importing countries, and, owing to the nature of its manufactures, it is likely to continue to occupy that position; nevertheless, the value of its imports will probably show an increase in 1889 and 1890 in consequence of contracts for several iron bridges having been let to French firms. Imports from the United States show a falling off of 3.36 per cent. as compared with 1887, when the result as compared with 1886 was an increase of 23.60 per cent. Owing to the disappearance of the cholera and the consequent re-opening of the cordillera passes, the imports from the Argentine Republic show an increase of 95.99 per cent., or nearly double their value in 1887. The total value of the imports from the Argentine Republic amounted to $4,345,407, of which sum $4,164,193 corresponded to cattle. Chilian exports to the Argentine Republic in the same period amounted to $23,600 only, consequently there was a balance of trade against Chili of $4,321,807, which sum had to be paid in gold "for articles that Chili can and ought to produce."

The total value of the exports in 1888 was $73,089,935, as compared with $59,549,958 in 1887. Of the former sum Great Britain took $56,898,407, or nearly 80 per cent. of the whole; Germany took $4,751,990, or 6.29 per cent. less than in 1887; France took $4,295,055, or 29.67 per cent. more than in 1887; the United States took $2,070,694, or 20.70 per cent. less than in 1887.

With respect to the nature of Chilian exports, we learn from the Estadistica Comercial that in forty-five years (1844–'88) Chili has exported 1,401,701,772 kilograms of fine copper, of the estimated value of $467,394,422. The exportation of fine silver in the same period amounted to 3,563,941,515 grams, of the estimated value of $148,041,792. The total value of the exports of these two metals in the before-mentioned period of forty-five years amounted to $615,436,214, or 68 per cent. of the value of all the mineral produce exported in that period.

There are in the Estadistica Comercial very interesting chapters on copper, nitrate, and the probable depreciation of gold. It is admitted that Chili can no longer regulate the price of copper, but it is claimed that she can still retain her hold as an important factor in the copper industry of the world by the adoption of certain measures, such as, for instance, the expropriation of the mineral railways, the construction of roads, the introduction of improved systems of mining and smelting, and the employment of the necessary amount of capital in mining undertakings. The sending of a commission of practical men to study on the spot the management and working of the American and Rio Tinto mines is strongly advocated.

The chapter on the depreciation of gold is of a very interesting nature, but the time and space at our disposal will not permit us to go into the question at any length on this occasion. Señor Torres takes as a text for his subject, which he handles well, a recent report of the director of the United States mint, and he arrives at the conclusion that we are about to witness a depreciation of gold and the consequent appreciation of silver and other Chilian exports. In this connection it may be of interest to state that in the half-decade 1884–'88 Chili has exported gold of the value of $4,205,284, all or nearly all the produce of her own mines. With respect to nitrate, Señor Torres does not share in the opinion recently mooted here by a firm of brokers of a crisis being imminent, owing to overproduction, but, on the contrary, he is of the opinion—and he bases his opinion on interesting facts and figures—that what with the probable depreciation of gold, the extension of the actual consuming markets, and the opening up of new ones there is a brilliant future in store for the salt, which in 1888 figured in our exports for $33,866,196, and in eleven years (1878–'88) for a grand total of $231,451,444, and which contributed to the national revenue in 1888 in the form of export duty the large sum of $17,838,978.

PARAGUAY IN 1889.

REPORT BY CONSUL HILL, OF ASUNCION.

IMPROVEMENTS IN ASUNCION.

The rash speculation in land values which ran riot last year has ebbed, and in its place the observer marks the movements of real progress on every hand. The improvement made in Asuncion during the past year is especially striking. The paving of the streets is well under way, new tram-lines have been opened up, the longest of which connects Trinidad, 3 miles distant, with Asuncion. An attempt has been made to light the city with electricity, and the new center Villa Morra, 4 miles from the city by tram, has been successfully inaugurated. The latter, including the fine hotel and baths, forms quite a village.

In May a revolutionary attempt at San Pedro was easily suppressed by the Government.

IMMIGRATION.

The following figures show that immigration is beginning to flow toward Paraguay in considerable quantity. There arrived in Paraguay during the years 1881–'88, 26, 277, 116, 286, 63, 100, 563, and 1,064 immigrants, respectively.

The Government has appropriated $200,000 to encourage immigration, as against $50,000 provided last year. The difficulties in the way of diverting a regular stream of immigration from Europe to Paraguay against the inducements held out by the governments of Brazil and the Argentine Republic are very great. It is said that many who leave Europe for Paraguay are met in Buenos Ayres by emissaries of the Argentine immigration office and induced to stay in the Argentine Republic, sometimes even when they owe their ocean passage to the gratuity of Paraguay. The lack of means of Paraguay and of direct communication with Europe are serious obstacles in the way of the Government's efforts to attract immigrants. The colonies at Villa Hayes, San Bernardino, and San Pedro are doing well.

Two young Americans, Messrs. Gwynn and Williamson, are interested in a project which seeks to introduce a colony from the United States. Mr. Gwynn is now in Virginia and will soon start for Paraguay, accompanied by sixteen practical farmers who thoroughly understand tobacco and coffee culture. The Paraguay Land Company, which is doing so much in the way of developing the resources of the country, has given the colony 2 leagues of land near San Pedro on certain conditions, and will second the efforts of Messrs. Gwynn and Williamson to make the venture a success. We shall now see what the best machinery in the hands of men skilled in its use can do with the tobacco and cotton of Paraguay.

The Banco Agricola, designed to encourage the cultivation of agricultural lands (law of September 24, 1887), began operations July 7, 1888. Hitherto it has not accomplished much, owing to lack of means. It is understood that a large part of the money received by the sale of the railway is to go to this institution. If so, it will doubtless justify the hopes entertained of it by its promoters.

RAILROADS.

The work of prolongation of the railway from Paraguari to Villa Rica has continued through the year. Two new stations have been opened. It is expected that the line will be completed to Villa Rica by January, 1890. In March the existing railway and the right to extend it to Villa Encarnacion, under the terms of the Stewart concession quoted in my last report, passed into the hands of London parties. The fact that the stock of the company was subscribed three times over in London shows that confidence in Paraguay, so seriously shaken by the unfortunate loans of 1871–'72 and the disastrous failure of the so-called "Lincolnshire colony," is reviving in that market. The well-known contracting firm of Perry, Cutbill, De Longue & Co. has the contract to build the road, and their engineers are now making preliminary surveys.

The Morra tram-way, extending from the port of Asuncion to Villa Morra, consisting of 13 kilometers of line, was also sold in May to Mr. C. P. Ogilvie, of London, the consideration being £40,000.

The survey of the proposed line to connect Asuncion and Sucre, Bolivia, is being pushed. The work on the first division has been completed by Mr. P. Freund, the chief engineer, and the plans approved.

A project for which a concession is asked to build a line from Villa Pilar to Paraguari is now before the Paraguayan Congress.

It is understood that the Platense Company propose to put on the river a special fast service of boats, which will make the trip from Buenos Ayres to Asuncion in three and a half or four days, instead of six or seven as at present.

The roads throughout the country are being improved, and the Government built thirty new bridges during the year.

PROMOTING COLONIZATION.

After great opposition the Government has just passed a special law authorizing the creation of the Paraguay and River Plate Bank. The capital is fixed at $8,000,000 paper in 80,000 shares of $100 each, of which 10,000 will be handed over to the initiator and promoters as compensation, the Paraguayan Government subscribing for 20,000, Mr. T. Duggan, the president, 20,000 more, and the remainder to be offered to the public. It will be enabled to issue notes to three times the amount of its paid up capital, effect all usual banking business, and have a special section for encouraging colonization. The names of the movers in this business, including some of the heaviest capitalists of the River Plate, is a guaranty of the soundness of the enterprise. There are already five banks in Asuncion.

POSTAL AFFAIRS.

The improvement in postal affairs is shown in the following: 1888, interior, 256,267 postal communications; exterior, 282,826 postal communications; total, 539,153, against 438,846 in 1887, an increase of 100,309.

IMPORTS AND EXPORTS.

The total value of imports and exports for the year 1887 amounted to $4,447,726.58; in 1888 it reached $5,878,466.30, an excess over 1887 of $1,430,639.72, divided as follows: Imports, $3,289,757.77; exports, $2,588,608.53; excess of imports, $701,149.24.

The total general receipts of the Government for 1888 amounted to $3,551,445.54. The sources of revenue were as follows: Customs dues, $1,389,132.10; receipts from various sources, $246,868.29; receipts from sales of public lands and "yerbales," $1,915,445.15. Compared with the receipts of 1887 we find an excess in favor of 1888 of $495,352.08.

INTERNAL DEBT AND INTEREST ON BONDS.

The internal debt, which amounted to $1,068,891.53 on January 1, 1888, is now completely extinguished. The interest on the bonds issued in accordance with the arrangement with the English bond-holders in 1885 is promptly met up to date. These bonds, which in 1887 were quoted in London at 34 per cent., are now quoted at between 39½ and 41 per cent., and show a disposition to rise.

CHURCH IMPROVEMENTS.

During the year $125,448.30 have been expended on the repair of country churches. The number of edifices which have received a share of this Government bounty runs up to sixty-seven. The Government also appropriated the sum of $200,000 to aid in rebuilding the Church of the Incarnation at Asuncion, which was destroyed by fire on the 4th of January, 1889.

EDUCATION.

The cause of public education has received the special attention of the Government. The number of public schools is now 160, of which 96 are for males and 64 for females. Besides these schools, there exist in many departments private schools supported by the superior council of education, and which amount to more than one hundred. In 1887 there were 138 schools, attended by 15,180 pupils; in 1888 there were 160 schools, attended by 28,526 pupils. The sum of $289,968.42 was expended on public education during the year, divided as follows: Expended by the council of education in accordance with the law of October 24, 1887, $94,584.30; law of budget, $44,000; product of 10 per cent. on fiscal lands, $37,922.54; national college, product of 4 per cent., $103,461.58. Some months ago a young ladies' seminary (*lyceo de ninas*) was established by private enterprise in Asuncion. About forty of the daughters of the best families attend this institution, which is in charge of a North American lady.

THE PARAGUAY-BOLIVIA DISPUTE.

The dispute between Paraguay and Bolivia, which resulted in the withdrawal of the Bolivian legation from Asuncion for some months, has now been satisfactorily settled and diplomatic relations resumed between the two countries.

ENCOURAGING OUTLOOK.

Paraguay has sent an exhibit to the Paris exposition. She was represented in the International South American Conference which met in Montevideo August 25, 1888, and will send a delegate to the conference which meets in Washington in October, 1889.

In spite of all difficulties and discouragements, and they are many and pressing, Paraguay has never seen days so full of hope and promise as these of 1889. With a moderate influx of immigration and the diffusion of popular education, to secure which the efforts of those in power are untiring, the way of the little Republic to wealth and power should not be doubtful. And when we see Italy, a country of nearly the same size and of very similar character, thronged with 30,000,000 people, and Paraguay with a scanty 300,000 souls, it would seem that the day can not be far remote when a more equitable and rational distribution of the human family shall be brought about. Then, when there are hands to till the soil, Paraguay will become (what she is not now) a producing nation, whose yerba, tobacco, cotton, rice, and fruits will be found in the markets of the world.

There is nothing to be said as respects American trade in addition to what I submitted in my earlier report. Inasmuch as all trade with Paraguay, from whatsoever nation the merchandise be sent, is all second-hand through the Argentine Republic or Uruguay, which control the mouth of the Plate, the conditions are the same as those for River Plate trade in general, which have been so ably set forth by Consul Baker, of Buenos Ayres, in his frequent reports to the Department. In general, I would say that nothing may be done to promote American trade in any marked way until better means of communication and better banking facilities with the United States are supplied. It will require something very different from the reports of commissions and the efforts of United States consuls to wrest this South American trade from German and English hands. They realize that a great commercial battle for supremacy is on. The English journals have already sounded the alarm, and European forces, even now strongly intrenched here, may be expected to contest every inch of ground in this southern half of the hemisphere.

FRANK D. HILL,
Consul.

UNITED STATES CONSULATE,
Asuncion, August 14, 1889.

TRADE AND COMMERCE OF COLON.

REPORT BY CONSUL VIFQUAIN.

CANAL TIMES ON THE ISTHMUS.

The decadence of Colon and the almost entire prostration of all business at this place since the collapse of the canal becomes more and more apparent. It very often happens that not a solitary vessel is to be found in this harbor, a thing that was never known here even previous to 1880 and after 1860, and yet it is but a short while ago since vessels were obliged to be anchored out for days in waiting for dock room at which to unload their respective cargoes.

The local traffic of the isthmus during the time that work was being pushed on the canal had reached vast proportions. The line of the canal, between here and Panama, about 50 miles, was a vast bivouac, where the most energetic of all nationalities and races had congregated to amass wealth, and many have done so, especially among the Chinese portion of it. Wages were high, princely salaries were paid, money was made easy and expended most freely. Day-time was not enough; the nights themselves were turned into day, and, literally speaking, the twenty-four hours of the day were a constant draft on various industries. The expression the most fitting is, "it was bedlam let loose," and people can not have any idea of what the isthmus was in 1885, 1886, 1887, and part of 1888, unless they have seen it.

Forty towns had sprung up on the line in almost as many miles, every one of them thriving, a real bee-hive of people; in fact, all of them bent, not only at changing the physical aspect of the land, but in turning a tropical jungle of heretofore a death-dealing clime into a new Babylon, for never was there such a confusion of tongues and a conglomeration of races from all over the world. These people were fighting back the diseases manfully, dying at once without murmur, or living, in spite of clime, lives of the most reckless dissipation when at leisure. It is not a wonder that so many have died; it is a wonder that so many have lived. Indeed, it can be truthfully said that "grim death got exhausted at the task" and retreated to his lair. The isthmus had become habitable; before the advent of this reckless throng it was not. And what has become of it all? Vanished. The people have all gone, business is dead on the line, the local traffic is dead, the line of the canal, once—only a short while ago—the liveliest place on the globe, is dead; the rank vegetation of the tropics is growing denser, it seems, for the rest it has had, hiding from view railroad trains, dredges, and all the paraphernalia of the canal contractors, who left their implements of all sorts as if work were to have been resumed in the morning.

Colon and Panama still live, but that is all, merely by-way stations for the traffic across the isthmus eastward and westward between two hemispheres.

In Colon rents have fallen off 500 per cent. in three months, and still on the decline. The Panama Railroad, which in 1888 paid 23.50 per cent. of dividends, will in 1889 pay only 9 per cent. This line in 1888 carried 1,300,000 passengers (4,000 every day); this year it may carry probably 500,000, if so many.

But the transit traffic has not suffered; on the contrary, it is only the local traffic which in a short six months has suffered a loss of nearly 110,000 tons of imports, that is to say, this much has been lost to the local trade. As a result nearly two-thirds of the business houses in Colon are closed up, and bankrupt sales are a daily occurrence.

THE SHIPPING.

The table of comparative statement of vessel entries, hereto annexed, gives an exact return of the vessels entered at this port during the last two years. It shows a decrease of 108 vessels for the last year with a decreased tonnage of 109,190 tons burden. Out of the 577 vessels entered in the year 1888–'89 there were only 91 carrying the American flag, a falling off over the year 1887–'88 of 58 vessels. Out of these 91 vessels 55 were sailing craft and the remaining 36 steamers, every one of them belonging to the Pacific Mail Steam-ship Company, which runs 3 steamers monthly from New York to this place.

In the year 1886–'87 the entries of American vessels here were 113 sailing and 42 steamers. It will thus be seen that the American steamer entries remain about stationary, while foreign steamer entries have materially decreased. On the other hand, the loss in entries of sailing craft is almost exclusively American, owing, no doubt, to the fact that the demand for coal and lumber on the isthmus has almost entirely stopped so far as private enterprise is concerned. The coal and lumber coming here now are for the use of the Pacific Mail Steam-ship Company and the Panama Railroad. All of this lumber comes from the United States, but about one-third of the coal comes from Great Britain.

The Panama Railroad purchased the other day, at public sale, from the bankrupt firm of Artigues & Souderegger, canal contractors, coal at $2.50 per ton and lumber at $15 per thousand.

Comparative statement of vessel entries at the port of Colon during the years ending September 30, 1888 and 1889.

Months.	Sailing vessels.				Steamers.			
	1887-'88.		1888-'89.		1887-'88.		1888-'89.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
October	19	2,482	21	5,001	36	70,047	31	63,104
November	22	6,448	25	3,849	31	60,235	34	70,810
December	32	6,456	24	5,592	33	80,546	34	60,790
January	21	3,951	19	5,008	36	65,517	46	73,634
February	25	3,620	18	2,720	34	74,734	22	55,684
March	24	4,270	16	2,300	41	80,334	36	68,864
April	24	4,945	8	1,000	34	67,680	31	56,417
May	12	1,808	16	2,200	38	75,775	31	63,868
June	21	1,458	15	2,100	37	69,812	23	54,558
July	20	4,116	12	1,400	36	69,091	30	58,392
August	18	2,724	19	2,204	36	67,879	19	63,382
September	23	1,679	23	2,060	32	64,122	24	56,092
Total	261	43,957	216	35,434	424	845,772	361	735,595

Months.	Grand totals.			
	1887-'88.		1888-'89.	
	No.	Tons.	No.	Tons.
October	55	73,529	64	68,105
November	53	66,683	52	74,659
December	65	87,002	56	66,882
January	57	69,468	65	78,642
February	59	78,354	47	58,415
March	65	84,604	52	71,162
April	58	72,625	39	66,417
May	50	77,583	47	66,068
June	58	71,270	38	56,658
July	56	73,207	42	59,793
August	54	70,603	48	65,586
September	55	65,801	47	58,152
Total	685	899,729	577	790,539
Decrease for last year			108	109,190

EXPORTS.

Coffee.—The table of comparative statement of products shipped at Colon for foreign ports shows a decrease in almost every thing except coffee. All this coffee is raised in Central America, and as the new plantations begin to bear the coffee exported from this place will largely increase. This coffee is of a very superior quality, and it is estimated that during the year 1889–'90, if the crops mature successfully, that fully 750,000 bags of 125 pounds each will be exported.

From the coffee exported this year the United States took about 30,000 bags; Germany, 213,982; England, 160,000; and France the remainder; a very small portion of the whole for the United States, as may be seen. Yet it is safe to say that, owing to the difference of distances between Rio de Janeiro and New York on the one hand and Colon and New York on the other, or still better, Colon and New Orleans, the coffee trade between the United States and Central America is liable to a very large increase. The fact that Germany gets about one-half the coffee raised and exported from Central America is due to the great preponderance of German traders and commission-merchants located at the coffee centers. The coffee crops begin to move in January, and until June the product is very much sought after by the steam-ship companies here.

Ivory-nuts.—The ivory-nut trade is divided between the United States and Germany almost entirely, Germany this year taking 12,652 bags out of the 25,000 shipped from this port.

Cocoa-nuts.—The cocoa-nuts go chiefly to Great Britain.

Cacao.—The cacao for chocolate goes to France and Spain, with some 19,562 bags for Germany. These bags weigh 150 pounds and often more.

Miscellaneous.—The tobacco, with hardly any exception, goes to Germany; the ores also nearly all go to Germany; while the treasure is about equally divided between the United States and Great Britain, with a small preponderance, perhaps, in favor of the latter country. The trade in valuable woods—mahogany, rose-wood, palm, etc.—is divided between the United States and Italy chiefly. One-quarter of the hides go to Germany, the rest almost exclusively to the United States.

In the table of shipment of products from this place can be seen barley, beans, wines, brandies, and canned goods; these are California products, the very greatest part of which goes to the United States, and is sent this way, no doubt, because of the cheaper water rates.

In the aggregate, I can say that the value of the products shipped to the different parts of the world during the year 1888–'89 is, perhaps, one-half a million less than it was during the year 1887–'88, which on the whole value, which is very large, makes it materially the same. The coffee exports from this place represent nearly $14,000,000—about two-thirds of the total value of the total exports.

Comparative statement of exports shipped from the port of Colon during the years October, 1887–'88 and 1888–'89.

Articles.		From October 1, 1887, to October 1, 1888.	From October 1, 1888, to October 1, 1889.
Asphaltum	bales	830	337
Balsam	cases	750	1,052
Bananas	tons	9,500	6,700
Bark	bales	...	495
Barley	bags	90,071	40,094
Beans	do	19,286	6,621
Bees-wax	cases	210	179
Borax	boxes	14,960	15,148
Cacao	bags	114,228	109,981
Canned goods	cases	11,355	2,437
Cigars	do	...	13
Cocoa	bales	984	10,151
Cocaine	do	...	18
Cocoa leaves	do	...	400
Coffee	bags	498,672	531,712
Cotton	bales	2,815	58
Glue	do	2,067	1,007
Hats	zeroons	277	567
Hides	single	181,151	122,110
Hides and skins	bales	3,684	5,225
Indigo	zeroons	10,367	4,479
Iodine	barrels	277	771
Ivory-nuts	bags	34,158	25,704
Lead	pigs	6,293	...
Leather	bales	...	32
Miscellaneous	packages	7,394	820
Mustard-seed	bags	2,499	73
Orchilla	bales	180	...
Ore	bags	22,405	7,772
Plants	cases	...	431
Quicksilver	flasks	2,900	662
Rags	bales	4,569	2,669
Rubber	do	12,696	5,620
Sarsaparilla	do	...	31
Spice	cases	...	171
Straw	bales	...	72
Stuffed birds	cases	...	56
Sugar	barrels	5,940	436
Tea	cases	...	2
Tobacco	zeroons	5,873	2,013
Treasure	boxes	3,999	4,087
Turtle-shells	cases	...	408
Wine and brandies	barrels	22,424	13,819
Woods	tons	...	498
Wool	bales	2,611	745

IMPORTS.

The shipments from all ports in the United States and Europe aggregated 173,510 tons during the last year; the year previous it was nearly 283,000 tons, a decrease of some 110,000 tons. These shipments are sent from here to Panama, less the amount used on the isthmus, and from that port are sent to California, Mexico, Central America, South Pacific, and

Japan. The shipments of United States products out of this number stand in the ratio of 46 to 72; that is to say, that in 1888–'89 Europe furnished about 62 and the United States 38 per cent. of the total imports at this place.

From the total imports it is estimated that some 50,000 tons are for local uses on the isthmus, the remaining 123,510 tons being shipped from Panama to San Francisco, Mexico, Central America, South Pacific, and Japan in the following proportions, to wit:

	Per cent.
San Francisco	46
Mexico	3
Central America	22
South Pacific	20
Japan	9

These same goods come from the United States, Germany, England, and France in the following proportions, to wit:

	Per cent.
United States	38
Germany	30
England	24
France	8

The following table gives a detailed monthly statement of all imports at this place:

Months.	From Europe and United States to Colon.			Total.
	Lumber.	Coal.	General merchandise.	
1888.	*Tons.*	*Tons.*	*Tons.*	*Tons.*
October	1,607	7,642	15,118	24,367
November	2,618	7,020	14,542	24,180
December	1,307	4,014	12,111	17,432
1889.				
January	238	6,333	12,060	18,631
February	729	2,685	8,893	12,307
March	109	3,331	10,859	14,299
April	90	....	8,284	8,374
May	57	1,421	9,389	10,867
June	149	30	7,757	7,936
July	85	1,231	10,562	11,878
August	242	30	10,351	10,623
September	99	1,290	11,127	12,516
Total	7,330	35,027	131,153	173,510

AMERICAN TRADE DRAWBACKS.

As already stated, all of this lumber is from the United States, as also two-thirds of the coal. Now, then, if added to this is kept an account of the goods sent from New York to San Francisco by way of the isthmus, it can easily be seen how small the general merchandise trade between the United States and the above-named countries really is. And yet there are many citizens of the United States in Mexico, Central America, and the South Pacific countries, but mining and railroading seem to be their chief attractions. Both of these industries, it is true, offer many temptations, and this may in some way explain our deficiency in the mercantile line without in the least justifying that deficiency.

Some four hundred and ninety-two drawback certificates for goods shipped from New York to this place were verified at this consulate between October 1, 1888, and October 1, 1889. Clearly, these goods were exported from the United States, the main staples covered by the drawbacks being cut loaf sugar, lumber, and medicinal drugs, and in the whole number there is not over a dozen of drawbacks covering dry goods, a staple for which the United States is justly famous.

In former reports I have already alluded to the small quantity of cotton and woolen goods coming from the United States, and have given the reason therefor, namely, the carelessness of our manufacturers in furnishing goods of the proper width and length, as also the proper packing of these goods. It is absolutely necessary, owing to the means of locomotion and the thoroughfares of this country, that the packing should be suitable. If the goods are not properly packed when they come, they have to be opened here and repacked. Under the present circumstances the most important addition that wholesale exporting houses can secure is a capable packer or man who has been in these countries and understands the roads and the climate.

REPATRIATION OF DESTITUTE AMERICANS.

Under the law of February 25, 1889, providing for the repatriation of such Americans as were left destitute of means and without work because of the collapse of the canal, I have returned to the United States, principally to the port of New York, at the expense of the Government, one hundred and fifty-three at a cost of $6,714, or $43.81 per capita. For this I secured to each and all of them, at the cheapest rate attainable—$40 from here to New York, and $20 from here to New Orleans—a ticket. I have also furnished clothing to those who needed any (over one hundred suits) and subsistence while in waiting for transportation. If the quarantine regulations had not been enforced so early at New Orleans, I could have reduced the expense fully $1,500, but when the quarantine regulations go into effect the steamers going from here to New Orleans refuse to take steerage passengers.

I have, besides these 153, sent 34 more, which I managed to get on sailing vessels and a few on steamers to work their way home. These did not cost the Government any thing. If I add these 34 to the 153, it makes a repatriation of 187, or $36.50 per capita.

Of course, this consulate has to stand the burden of the repatriation. Three-fourths of these people were negroes, the rest white, with very few native Americans in the number.

Of course, this work has been no sinecure, and I have had to deal with extremely rough characters, as may well be imagined. Some of them would not take "no" for an answer, and at times the situation was any thing but pleasant.

Destitute Americans from most everywhere find their way to Colon, after severe tribulations and sufferings, no doubt, with the expectation that as soon as they reach this consulate they are safe for transportation home. Great is their disappointment when the consul can not comply with their request, as in many, very many, cases he can not.

It is evident that since the 1st of March last all those Americans who under the law of February 25 last were entitled to be sent home have had ample time to call for relief. If they have not called by this time, it is because they were not destitute at the time, or because they have had work to maintain them ever since. In either case they are not entitled to relief. Hence I am under the impression that the spirit of the law has been strictly complied with, and that it can with safety be repealed, as its object, to wit, "the repatriation of Americans who became destitute because of the collapse of the Panama Canal," has been accomplished, and this, too, at a very small expense considering the very large appropriation provided by Congress for the purpose and the purposes that might have been incidental thereto.

VICTOR VIFQUAIN,
Consul.

UNITED STATES CONSULATE,
Colon, October 25, 1889.

SUGAR BOUNTIES IN BRAZIL.

REPORT BY CONSUL BURKE, OF BAHIA.

I have the honor to report herein the substance of a decree of the Government recently published in the Jornal de Noticeas, of this city, setting forth some new provisions and regulations relative to establishing new sugar-mills, and assisting those already established, with a view to encourage the sugar industry in this country. The sum of 30,000,000 milreis ($16,380,000) will be proportionally distributed under the decree to the provinces that, under certain prescribed conditions, will engage in the construction of mills for the manufacture of alcohol and sugar from the cane. The decree sets forth that the mills shall be of such design or construction as the Government shall decide best, proportioned to the culture of the cane in the particular locality wherein the mill shall be located, and subject to certain requirements, among which I give the following:

(1) The area occupied by the works erected shall be considered in the distribution, as well as the natural surroundings and whatever else will promote and insure development.

(2) Power, capacity, and system or type of machinery used — the diffusion process being preferred — comprising economy of time, labor, and the fuel used, will also be considered in the distribution.

The Government will assume no responsibility whatever, either direct or indirect, for the expended capital beyond that fixed by the concession, whatever the determining cause for the excess of the expenditure may be.

Six per cent. per annum is guarantied for a term of twenty-five years, the interest to be given as soon as a certain part of the work has been done in construction, and to be paid on such part of the capital as has been employed under authority and by sanction of the Government.

To the mills already established additional security may be granted in order to enable them to employ the diffusion process if not already in use. The sum of 10 per cent. will be deducted from the guarantied capital and loaned to the sugar planters as an advance to aid them in commencing and carrying on the work of raising cane.

Six per cent. of the guarantied capital will be set aside as a working capital to cover cost of mills and transportation of machinery, etc.

Another 6 per cent. of the guarantied capital will be set aside for preliminary undertakings, organization, perfecting of plans, and other bona fide necessities, all to be approved by the Government.

A premium of 10,000 to 20,000 milreis (1 milreis = 54.6 cents American) will be given to the company or individual planter who will produce 12 kilograms of sugar of all grades or qualities from 100 kilograms of cane.

The planter who, through diligence and care exercised in the cultivation of the sugar-cane, shall succeed in any year in increasing its saccharine richness 10 per cent. over the previous year shall be entitled to, and shall receive, a reward of 10,000 to 30,000 milreis. The analysis shall be made by order of the Government.

The decree further provides that the central mills shall establish an agricultural school or experiment garden for cane culture, and shall furnish to the planters the different varieties of cane or of seed produced in the school or garden. The sum that the province of Bahia receives in the distribution of the 30,000 contos is 6,100 contos, or a little upwards of $3,000,000. The province of Sergipe, just north of this and bordering on it, receives 2,275 contos of the sum distributed.

DAVID N. BURKE,
Consul.

UNITED STATES CONSULATE,
Bahia, November 5, 1889.

Egyptian cotton crop.—Under date of October 3, 1889, Consul-General Cardwell, of Cairo, reports that, in consequence of ruling high prices of the staple, the gathering of the crop has been entered upon with much zeal, and one of the largest yields may be looked for. The staple is of very superior quality.

MEXICAN RAMIE.

REPORT BY MR. WHITEHOUSE, SECRETARY OF LEGATION.

I have the honor to transmit a résumé of some notes by Mr. Michaud on the cultivation of ramie in Mexico. Mr. Michaud has had considerable experience in Venezuela and Guatemala, and considers Mexico as especially offering advantages for the successful cultivation of this valuable plant. The state of Vera Cruz is admirably adapted, from its frequent rains and facilities of irrigation in the zone which extends from Jalapa to Tuxtupec, passing through Cordova, to the cultivation of ramie; and, in addition, the railways penetrating these districts offer ready means of transportation to market.

After its second year the plant can, as it does in Venezuela, yield four, five, and even six cuttings per annum. Both white and green ramie can be cultivated in Mexico, but Mr. Michaud prefers the white, which is very robust, and which yields a superior fiber to the green ramie.

White ramie comes to us from China. The leaf underneath is white, veined with green, and the leaves and stems are very hardy. Owing to this hardiness the plant will grow in almost any climate, but, nevertheless, has a predilection for a sandy, light soil, with a well-drained undersoil, as the roots rot in swampy ground. Soil impregnated with saltpeter is also prejudicial to its development.

In order that the stems may grow straight and narrow, without lateral branches, it is necessary that the plants should be crowded together, having a space of not more than half a yard between each; the stems will then give a much superior fiber. After the second year weeding is no longer necessary, as the multiplicity of roots does not allow the growth of any parasite. Once started the plants will last for years without being renewed. It is stated that the plants will live for more than fifty years. However, to obtain this result, an annual manuring is indispensable. In spite of the assertion of some cultivators that the fallen leaves suffice to manure the land, experience shows that the best results are obtained by using manure. Again, the leaves may be used for making paper, as is done in China. The cultivation of ramie requires but a small outlay and very slight labor, and, as the harvests are numerous when once the plants are fairly started, the return is prompt.

Spinning and weaving mills will, of course, be established in Mexico for making use of the fiber, but Mr. Michaud thinks that the richness of the soil will prove such that the production of raw material will far exceed their capacity of consumption. Europe, however, will take any such superfluity, in preference even to hennequen.

None of the machines at present in use for decortication give satisfactory results; all are too expensive, and none do sufficient work. There seems to be no doubt but that some chemical process will be found to give the desired results. A Mexican (Señor Ochoa) with whom I have spoken on the subject, pretends to have discovered a chemical process, as yet a secret, and for which he is about to seek patents in the United States and Europe, by which he obtains satisfactory results both as to the quantity of material produced in a given time and the quality of the fiber prepared. I have seen specimens of this fiber, which appear almost like silk to the eye and touch.

Mr. Michaud has employed the "Spence" process in Venezuela with satisfactory results; but this process is merely for separating the ribbons containing the fiber, and does not, consequently, do away with the difficulties encountered in decortication.

H. REMSEN WHITEHOUSE,
Chargé d'Affaires ad int.

UNITED STATES LEGATION,
Mexico, October 29, 1889.

RAILROADS IN COLOMBIA.

REPORT BY VICE-CONSUL WHELPLEY, OF BARRANQUILLA.

A line of railway has been surveyed from Carthagena to Calamar on the Magdalena River as the first step of introduction to capitalists in the United States after its rejection by English capitalists. In this connection, I believe it my duty to place the accompanying data at the disposition of the Department.

Before entering fully upon the negative merits of the enterprise in question, one erroneous idea should be dispelled, an idea very prevalent abroad: That Carthagena, being the capital of this department, and having a good harbor, is the chief commercial port of Colombia. The fame of Carthagena is largely due to its antiquity, having been founded in 1533 (before De Soto discovered the Mississippi). Centuries of decay are plainly visible in the ancient buildings, walls, and crumbling fortifications of the old town, whose prosperity is alluded to only in annals of the past.

The following notes from the "Physical and Political Geography of Colombia," published in 1883 by Felipe Perez, are worthy of attention:

In 1802 the imports of Carthagena were $1,000,000, the exports $3,000,000.

In 1808, population of the province, 170,000.

In 1835, population of the province, consisting of nine cantons, Barranquilla being one of the cantons, 130,324.

In 1851, population of province, 116,593, Savanilla being a province itself with 35,357, embracing Barranquilla and its adjoining suburb of Soledad.

In 1871 Carthagena is credited with a population of 8,663 as the capital of the State.

In 1880-'81, customs statistics: Carthagena—imports, $974,767; exports, $1,100,128; Barranquilla—imports, $8,496,806; exports, $11,261,992.

Comparison of postal statistics, 1870-'80: Carthagena—receipts, $17,857.34; expenses, $58,136.94; loss, $40,279.60; letters, 80,098; printed matter, 89,409; Barranquilla—receipts, $47,037.72; expenses, $41,690.56; profit, $5,349.16; letters, 311,799; printed matter, 309,523.

Coin transmitted: Carthagena, $290,616; Barranquilla, $2,713,377.

These statistical notes clearly show the commercial status of the two ports, and I pass on to the main purport of this article.

The first basis on which an enterprise of this kind must rest, is the population and wealth of the district to be traversed by the line.—*Dr. S. Comacho Roldan.*

The prospects of success for the La Dorada Railroad were based upon a surrounding agricultural, mining, and trading population of 1,064,270 of the four adjacent departments, Cundinimarca, Tolima, Antioquia, and Cauca, the twenty-three towns and settlements close to and traversed by the road being 42,000, the most thrifty and industrious class of people, and in one of the most healthy and wealthy sections of the Republic. Of this intended road but 14 miles have been completed.

From page 5, report on construction, I quote. In estimating the probable traffic when the road shall have reached La Dorada, I place the figures at the lowest possible point, and with the following result:

120,000 cargas* per annum, at $1	$120,000
50,000 passengers per annum at $1	50,000
Gross earnings	170,000

By referring now to inclosure 1 we may learn that in its fifth year of operation the earnings were $42,489.73; actual loss, $21,223.66.

Again, Barranquilla, with its 30,000 inhabitants, a large proportion of foreign residents, having eighteen river steamers in service, transporting last year 47,500 tons of freight in its fourteenth year of service, finds it difficult to sustain 18 miles of railroad.

With these official figures and statements as the result of accomplished facts in railroad construction within the radius of the most populous centers, the most enterprising communities in the Republic, we may predict the issue of a railroad 50 miles in length, to compete with steam-boat transit via the dike, with no local traffic, no agriculture, mining, or other industry to be developed, with a total population of 17,000 people at both termini and along the line proposed, and outside the walls of Carthagena three-fourths of the people are of the peon or laboring class, living in adobe huts, like their progenitors of a century ago. Probably no country is in greater need of railroad lines. Greater commercial expansion is a prime necessity to bring the produce of the plains of Bogota, the mines of Antioquia and Tolima, the rich and varied resources of Cauca, in close contact with the navigable waters of the Magdalena. But they are required to penetrate the fertile valleys of the interior to reach the sources of the nation's wealth, not along a sparsely settled and unproductive region and among the miasmatic swamps and lagoons of the coast.

Barranquilla is to the Magdalena and its tributaries as New Orleans is to the Mississippi, the terminus and home port of all the largest class of river steamers, the chief port for entry and shipment, her merchants controlling, through their correspondents in the interior and abroad, at least three-fourths of the imports and exports from the interior states bordering the Magdalena and the Cauca rivers.

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*A carga equals 250 pounds.

As another point of comparison in regard to wealth, population, and traffic as a factor in railroad enterprise, I would invite attention to the "Girardot Railway," called the "Southwestern Railway" in the reports of Dr. Camacho Roldan of July 1875. * * * So that the Southwestern Railway has for a traffic basis: Population, 400,000; real estate property, $45,000,000. The personal property may be estimated at one-half the last figure, that is to say, $22,500,000. Total of value represented $67,500,000, which gives a wealth of $170 per inhabitant. With these elements production of from $25,000,000 to $35,000,000 per annum may be computed at the present time, which, divided by loads of from $5 to $6 each (for they generally consist of agricultural effects, raw materials, and a few manufactures), gives a traffic of from four to five million loads, one-fourth of which might appertain to the railway line within six or eight years, and would have to be carried from 15 to 30 miles, and from one-tenth to one-eighth part of the whole length of the line.

This would seem to have been an enterprise on a sound basis. Ninety-six miles was the extreme length of the line surveyed. It was commenced in 1881, but to the present time has been completed to Partillo, 20 miles. But we have no data at hand in regard to the earnings of the completed section. Trains twice a week.

Here again I would introduce an extract from a recent report by Francisco J. Cisneros, on this Girardot Railway:

> Being accustomed to see in the United States of North America a railway constructed on desert regions and enormous currents of emigrants be directed there, and a considerable amount of traffic developed instantly, in my first works in Colombia (Antioquia and Cauca railways) I made hopeful calculations of a rapid increase of production and consequently of population; never, certainly, on the same scale as it has been done in the United States, for that is unparalleled, nor even on the same scale as what has been done in the Argentine Republic, for that is another country which has resolved the very important immigration problem in conformity with its requirements, but on a larger proportion than what had taken place in the same country on previous occasions. An experience of thirteen years of continuous study of the country has led me to see my error and to know its cause. It is certain that the traffic develops from year to year, but it develops very slowly, and it is perfectly clear that the true cause is the want of population.
>
> Emigration takes place from one department to another in the same country, if there is in the other greater facilities for subsistence. Also, the want of means of communication is a barrier to any current of population to a favorable locality, for more than what is necessary for consumption is soon produced there, and thus, the producers not being able to offer the excess to other localities, there is no demand for their articles, and ruin succeeds an abundant crop. Of this phenomenon, which is peculiar to countries having no means of communication, frequent examples are shown by the very fertile plain of Bogota, a matter which has been fully treated of in the pamphlet of Dr. Salvador Camacho Roldan.
>
> In confirmation of what I have said about the slow development of the traffic, I will quote the Bolivar and the La Dorada railways. The first has required a service of fourteen years to multiply four-fold the returns it had during its first year, and the latter only at the end of five years commenced to produce sufficiently to cover its expenses.

As Mr. Cisneros is undoubtedly the most competent authority on the railroad enterprises of Colombia, and an enthusiastic advocate of enterprise in any section that promises remuneration for capital invested, I wrote to him for his opinion of the Carthagena and Calamar line. Inclosure 2 is his reply.

S. M. WHELPLEY,
Vice-Consul.

UNITED STATES CONSULATE,
Barranquilla, November 19, 1889.

LA DORADA RAILWAY, IN ITS FIFTH YEAR OF OPERATION, 14 MILES (YEGUAS TO HONDO).

[Inclosure 1 in Vice-Consul Whelpley's report.]

A statement of the earnings and expenses in the year 1886.

Month.	Earnings.							
	Freight.			Passengers.				
	Number of loads.	Weight.	Amount.	First.	Second.	Third.	Total.	Amount.
		Pounds.						
January	3,984.04	1,053,394	$2,307.40	52	180	118	350	$255.40
February	4,295.11	1,024,855	2,450.80	40	120	78	238	147.40
March	5,336.29	1,415,862	2,865.20	152	217	247	616	395.10
April	3,976.58	1,055,706	1,918.70	63	262	167	492	230.90
May	4,842.61	1,280,410	1,948.35	101	268	18	387	139.00
June	2,931.81	686,958	1,182.70	74	285	137	496	162.00
July	7,674.52	2,135,785	3,401.88	126	166	143	435	358.25
August	7,945.03	2,081,590	3,592.18	135	102	117	354	240.25
September	8,303.47	2,175,386	4,173.50	156	244	122	522	212.55
October	8,992.09	2,355,904	5,005.90	222	240	154	616	245.58
November	7,677.50	2,011,636	4,085.90	475	352	653	1,480	479.35
December	6,695.73	1,754,352	4,166.65	170	186	115	471	186.70
Grand total	72,654.78	19,031,838	37,099.16	1,766	2,622	2,069	6,457	3,052.23

Month.	Earnings—Sundries.			
	Telegraph.	Express and baggage.	Sundries.	Total amount of earnings.
January	$36.80			$2,599.60
February	40.50	$14.63		2,653.33
March	45.80	29.25		3,335.35
April	17.70		$15.20	2,182.50
May	19.00			2,106.35
June	16.00	34.30	94.25	1,489.25
July	15.70	1.20		3,777.03
August	30.50	65.00	2.78	3,930.46
September	25.50	150.00	5.30	4,566.85
October	50.15	35.00	449.90	5,786.53
November	44.40	293.85	252.85	5,156.35
December	31.95	147.58	413.25	4,946.13
Grand total	374.00	770.81	1,233.53	42,489.73

A statement of the earnings and expenses in the year 1886—**Continued.**

Month.	Expenses—Repairs.					
	Track.	Rolling stock.	Bridge and culverts.	Tanks.	Repairing buildings.	Tot amour repai
January	$647.55	$522.18	$19.70	$13.50	....	$1,2
February	938.30	442.39	102.95	8.25	....	1,4
March	1,229.05	362.60	186.20	3.00	....	1,7
April	1,188.35	377.25	503.20	17.97	....	2,0
May	749.02	197.45	1,566.72	....	....	2,5
June	425.80	229.52	2,432.62	18.50	$31.80	3,1
July	473.75	228.05	1,223.42	35.17	8.67	1,9
August	489.95	297.12	1,066.12	6.75	.80	1,8
September	700.10	403.60	703.05	23.40	....	1,8
October	629.75	427.47	288.70	46.80	6.60	1,3
November	788.97	364.32	212.97	31.30	....	1,3
December	2,000.78	638.30	2,559.90	16.52	2.98	5,2
Grand total	10,261.37	4,490.25	10,865.55	221.16	50.85	25,8

Month.	Working expenses.					
	Traction.	Transport.	Stores.	Telegraph.	Wood.	Sun
January	$186.95	$306.70	$307.62	$100.70	$212.80	$
February	177.86	308.27	330.18	178.60	150.00	
March	288.77	309.85	352.75	256.50	180.00	
April	337.22	406.87	305.65	117.80	200.00	
May	339.55	597 15	317.42	124.05	200.00	
June	243.32	306.85	201.90	126.90	180.00	
July	205.77	615.70	343.55	204.47	150.00	
August	242.70	454.47	501.42	164.60	160.00	
September	126.57	483.10	614.82	170.95	125.00	1
October	241.50	534 90	1,034.65	247.35	160.00	1
November	174.30	451.10	667.35	178.70	130.00	
December	483.40	938.33	602.95	292.65	200.00	
Grand total	3,047.91	5,705.29	5,580.26	2,163.27	2,047.80	

Month.	Working expenses—Continued.			Profit.	Lo
	Government pay.	General expenses.	Total amount of working expenses.		
January	$59.85	$1,075.32	$2,280.94	....	$
February	47.42	1,124.56	2,337.64	....	1,
March	35.00	1,173.80	2,611.17	....	1,
April	40.55	1,754.55	3,197.24	....	3,
May	35.72	1,433.60	3,069.99	....	3,
June	214.52	872.95	3,188.89	....	3,
July	83.52	1,731.00	3,365.48	....	1,
August	599.57	1,785.92	3,914.33	....	1,
September	333.32	2,072.87	4,093.75	....	1,
October	333.32	1,227.20	3,943.09	$444.12	......
November	333.32	573.92	2,523.69	1,235.10	......
December	333.32	1,458.10	4,338.00	....	4,
Grand total	2,449.43	1,628.79	37,863.21	1,679.22	22,

comparative statement of earnings and expenses in January, February, and March, 1886, and those in the same period of 1887.

Period.	Earnings.							
	Freight.			Passengers.				
	Number of loads.	Weight.	Amount.	First.	Second.	Third.	Total.	Amount.
		Pounds.						
anuary, 1886	3,984.04	1,053,394	$2,307.40	52	180	118	350	$255.40
anuary, 1887	6,870.73	1,800,202	3,477.50	250	235	135	620	212.70
Difference in favor 1886								42.70
Difference in favor 1887	2,886.69	746,808	1,170.10	198	55	17	270	
ebruary, 1886	4,295.11	1,024,855	2,450.80	40	120	78	238	147.40
ebruary, 1887	7,020.98	1,839,502	3,769.28	226	305	217	748	255.50
Difference in favor 1886								
Difference in favor 1887	2,725.87	814,647	1,318.48	186	185	139	510	108.10
arch, 1886	5,336.29	1,415,862	2,865.20	152	217	247	616	395.10
arch, 1887	9,678.91	2,535,898	4,272.60	383	310	218	911	682.45
Difference in favor 1886						29		
Difference in favor 1887	4,342.62	1,120,036	1,407.40	231	93		295	287.35

Period.	Earnings—Sundries.			
	Telegraph.	Express and baggage.	Sundries.	Total amount of earnings.
anuary, 1886	$36.80			$2,599.60
anuary, 1887	29.00	$189.40	$304.28	4,212.88
Difference in favor of 1886	7.80			
Difference in favor of 1887		189.40	304.28	1,613.28
ebruary, 1886	40.50	14.63		2,653.33
ebruary, 1887	25.70	133.70	390.13	4,574.31
Difference in favor of 1886	14.80			
Difference in favor of 1887		119.07	390.13	1,920.98
arch, 1886	45.80	29.25		3,335.35
arch, 1887	33.05	181.95	702.32	5,872.37
Difference in favor of 1886	12.75			
Difference in favor of 1887		152.70	702.32	2,537.02

Period.	Expenses—Repairs.					
	Track.	Rolling stock.	Bridge and culverts.	Tanks.	Repairing buildings.	Total amount of repairs.
anuary, 1886	$647.55	$522.18	$19.70	$13.50		$1,202.93
anuary, 1887	533.92	373.00	49.77	6.55	$3.75	966.99
Difference in favor of 1886	113.63	149.18		6.95		235.94
Difference in favor of 1887			30.07		3.75	

A comparative statement of earnings and expenses, etc.—Continued.

Period.	Expenses—Repairs.					
	Track.	Rolling stock.	Bridge and culverts.	Tanks.	Repairing buildings.	Total amount o repairs.
February, 1886	$938.30	$442.39	$102.95	$8.25	....	$1,491.8
February, 1887	616.00	330.45	329.72	68.60	....	1,344.7
Difference in favor of 1886	322.30	111.94	....	....	....	147.1
Difference in favor of 1887	....	....	226.77	60.35	....	....
March, 1886	1,229.05	362.60	186.20	3.00	....	1,780.85
March, 1887	941.27	479.82	342.72	39.47	$8.60	1,811.8
Difference in favor of 1886	287.78	....	....	....	....	....
Difference in favor of 1887	....	117.22	156.52	36.47	8.60	31.0

Period.	Working expenses.					
	Traction.	Transport.	Stores.	Telegraph.	Wood.	Sundries.
January, 1886	$186.95	$306.70	$307.62	$100.70	$212.80	$31.00
January, 1887	324.72	373.07	746.30	186.35	150.00	47.47
Difference in favor of 1886	....	....	....	....	62.80	....
Difference in favor of 1887	137.77	66.37	438.68	85.65	....	16.47
February, 1886	177.86	308.27	330.18	178.60	150.00	22.75
February, 1887	297.22	378.32	901.25	141.37	150.00	17.20
Difference in favor of 1886	....	....	....	37.23	....	5.55
Difference in favor of 1887	119.36	70.05	571.07	....	....	....
March, 1886	288.77	309.85	352.75	256.50	180.00	14.50
March, 1887	353.22	341.30	704.22	215.55	200.00	86.30
Difference in favor of 1886	....	....	....	40.95	....	....
Difference in favor of 1887	64.45	31.45	351.47	....	....	71.80

Period.	Working expenses—Continued.			Total amount of expenses.	Profit.	Loss.
	Government pay.	General expenses.	Amount of working expenses.			
January, 1886	$59.85	$1,075.32	$2,280.94	$3,483.87	....	$884.27
January, 1887	333.32	1,235.32	3,396.55	4,363.54	....	150.66
Difference in favor of 1886	....	....	....	....	....	....
Difference in favor of 1887	273.47	160.00	1,115.61	879.67	....	....
February, 1886	47.42	1,124.56	2,337.64	3,829.53	....	1,176.20
February, 1887	333.32	1,342.07	3,560.75	4,905.52	....	331.21
Difference in favor of 1886	....	....	....	....	....	....
Difference in favor of 1887	285.90	217.51	1,223.11	1,075.99	....	....
March, 1886	35.00	1,173.80	2,611.17	4,392.02	....	1,056.67
March, 1887	333.32	1,164.70	3,398.61	5,210.49	$661.88	....
Difference in favor of 1886	....	9.10	....	....	....	....
Difference in favor of 1887	298.32	....	787.44	818.47	....	....

MR. CISNEROS TO VICE-CONSUL WHELPLEY.

[Inclosure 2 in Vice-Consul Whelpley's report.]

BARRANQUILLA, *November 6, 1889.*

S. M. Whelpley, Vice Consul.

DEAR SIR: It gives me great pleasure to answer your esteemed letter of the 2d instant.

The most important railways at present in Colombia are—

(1) From Puerto Wilches to Bucaramanga.

(2) To extend the Antioquia Railway to Medellin.

(3) To extend La Dorada Railway north to Buena Vista and south to Girardot through Mariquita and the mine district of the Tolima.

(4) To finish the Girardot Railway to Bogota.

(5) To extend the Cauca Railway to Culi.

These involve an extension of 420 miles and an outlet of $15,000,000. Later on these railways could be connected and be the most important system of the country. In these districts are the best lands, healthiest places, and larger population of the Republic, and these railroads properly managed will pay from the beginning.

I am sorry that my time at present is so limited, but I send to you some of my pamphlets, which will give you a better idea of what I said.

Coming now to your questions—

(1) Would a railroad from Carthagena to Calamar, via the dike settlements, be of any advantage commercially? Decidedly not.

The statement of last year's traffic over the Barranquilla Railway, which I beg to inclose, shows that 47,500 tons is the whole amount, and that, of course, is not enough even to feed this line. The Barranquilla Railway is 18 miles long, the actual pier at its extension is 870 feet long, and is going to be extended of iron on the principle of the shore of Coney Island and Long Branch. Our pier will reach 27 feet of water at extreme low water.

The line from Carthagena to Calamar will be no less than 80 miles through a swampy country, and I doubt very much if as an average it could be built at $25,000 gold per mile. At this price the amount will be $2,000,000, which at 6 per cent. equals $120,000. Assuming that the whole traffic would take that way, they would have to charge the same price as that on the Barranquilla line, that is, $2.30 gold per ton, the 47,500 tons will earn $109,250.

Maintenance, operation, etc., can be estimated at $3,000 per mile per year, or $240,000. Therefore—

Expenses	$360,000
Gross earnings	109,250
Yearly deficit	250,750

The Magdalena River, from Calamar to Barranquilla, is so good that our steamer companies charge the same rate from Barranquilla as from Calamar to any port south, or *vice versa*.

Two trains daily and occasionally an extra or express are enough to carry the whole business of the country by the Barranquilla Railway. The reason is clear. The Republic of Colombia is 500,000 square miles, and its population 4,000,000. The Bolivar department is 70,000 square kilometers, and its population 323,097.

The great drawback of this country is lack of population. The laws of the country are not intended to invite immigration, and during revolutionary times there is no guaranty whatever, therefore it will take some time before the population increases, and the wisest way is to build very economical railways on those parts more populated.

A projected immigration scheme to Costa Rica recently failed, and any company rushing here on such matters will fail surely. It will take years and a great deal of labor to make a successful business of immigration to this country.

I would not invest a dollar in the Carthagena Railway. I do not believe in its construction, but if ever a poor capitalist be induced to invest money in it, it will become a white elephant for its owner.

A gentleman, Mr. Clegg, framed a contract some months ago, and went to London with it, where no one would listen to him, and the affair fell through.

Excuse my writing so hastily, and if I can grant some more information please let me know it and I will only be too glad to give it to you.

I remain yours truly,

F. J. CISNEROS.

MR. DOUGHERTY TO VICE-CONSUL WHELPLEY.

[Inclosure 3 in Vice-Consul Whelpley's report.]

BARRANQUILLA, *November 20, 1889.*

S. M. Whelpley, Esq., United States Consul.

DEAR SIR: Your favor of this date received, in which you ask the following questions and request an answer:

(1) Would a railroad from Carthagena to the Magdalena River, at or near Calamar, be of any advantage commercially?

(2) Are the people of that section able to contribute to any local traffic for the support of the road?

(3) What proportion of interest, say on a capital of $2,000,000, could such a road pay, besides running expenses?

(4) Is it probable such a road would pay, besides running expenses?

(5) Would you be willing to invest capital in such an enterprise?

In answer, will say that I base my opinion on nine years' experience in this country in locating, building, and operating railroads, and in continued observations during that time to the traffic on the Magdalena River.

In answer to the first question, "Would there be any commercial advantage?" Yes; but only to Carthagena. No, to the investors, because at least 90 per cent. of the boats now carrying the traffic of the Magdalena River are owned by companies in Barranquilla. These companies have their shops, piers, warehouses, offices, etc., and all other necessary facilities for repairing their boats and handling freight in Barranquilla. Now, the question is, will these companies carry freight from the upper part of the river and deliver it to a railroad at or near Calamar, then run down to Barranquilla, a distance of 80 miles, with little or no freight and passengers, and then return to Calamar empty to receive cargo and passengers for the upward voyage? The projectors of the proposed railroad base their calculations that the amount of cargo transported on the Magdalena River will be carried to a large extent on the railroad to Carthagena; that at least 75 per cent. will go by rail to Carthagena instead of to Barranquilla by steamers. They forget that the cost of transportation by rail from Calamar to Carthagena will be greater than from the head of navigation to aboard ocean steamers in Savanilla Bay, via Barranquilla. This being the case, shippers will send their freight for exportation and will bring the importation via the Magdalena River and Barranquilla. This question is simply this: Shippers in this country, as elsewhere, will send their freight by the cheapest and most expeditious route. In this case that end is gained by way of Savanilla and Barranquilla, which is a commercial disadvantage to the proposed railroad.

Answer to second question: The section through which the projected railroad is designed to run is very sparsely settled, consequently the local traffic would be extremely small. At present that section produces comparatively nothing, and I doubt if it would ever amount to much.

Answer to third question: My time being limited, I can not go into the details of a calculation on this point; suffice to say I have studied this part of the subject and estimated the cost of constructing a road on that line. My estimate amounted to $2,500,000, in round numbers. My opinion is, the road could not pay an interest of 5 per cent. on the capital, much less earn the operating expenses; in fact, I do not believe it would earn enough to pay for oil for lubricating the car axles.

Answer to fifth: I would not invest one dollar in such an enterprise, for the reasons set forth above, and would advise capitalists seeking investments to avoid this scheme.

I have given you my opinion as briefly as possible, and without bias or prejudice to any person or locality.

Yours respectfully, etc.,

JNO. B. DOUGHERTY, C. E.

RAILWAYS IN VENEZUELA.

REPORT BY CONSUL PLUMACHER, OF MARACAIBO.

I have the honor to furnish the Department with further details respecting the progress of the railway from the lake coast to the city of Merida, as referred to in my despatch No. 574 of March 4th last.

In January last the chief engineer, Mr. William H. Burr, an Englishman, and a staff of assistants, principally Americans engaged in New York, together with an English physician, arrived at Maracaibo and began the organization of the work. The circumstances attendant upon the concession for this enterprise were somewhat peculiar, and a brief résumé thereof will be of interest to those of our own countrymen who may contemplate similar enterprises in this Republic.

When the question of a railway from the lake shore to Merida was first seriously discussed, Guzman Blanco was then supreme in Venezuela and in actual possession of the presidency.

His son-in-law, the Duke de Morny, visited this country immediately after his marriage, and was at once granted various valuable concessions, among them one for the construction of a railway from San Carlos, a river port at the extreme south of Lake Maracaibo to the city of Merida.

This concession was granted by the executive power, needing only the approval of Congress to render it valid. As for nearly twenty years, however, the will of Guzman had been the law of the land, and as the national legislature had never hesitated to approve all of his acts without discussion, it was taken for granted that this railway contract of de Morny would be at once confirmed, although its terms were highly disadvantageous to the country and proportionately favorable to the concessionaire.

In a previous dispatch I pointed out the just grounds of the people at large against the issue of a contract based upon such unequal terms, and inclosed newspaper articles referring to the matter in which both Guzman and his son-in-law were severely handled. However, as time elapsed the reaction against the dictator took place, and the present incumbent, Dr. Rojas Paul, succeeded to the presidency. Congress met and most of the contracts made by General Guzman Blanco were disapproved, but this particular concession for the Merida road was not submitted, its supporters fearing, no doubt, that in the existing temper of Congress and on account of the force of public opinion it would meet a like fate.

In the meantime de Morny had formed a company in Paris, he and his father-in-law, it is said, being heavy stockholders, and this company contracted for the construction of the road with the Compagnie de Fives-Lille, a French firm whose operations extend over the greater part of the civilized world. This latter company, it will be understood, are merely the constructors, having engaged to build the road for a stipulated sum, and have nothing whatever to do with questions of concessions or ownership.

It will be noted from the foregoing, however, that the contract is not yet approved, and if in February next when the Venezuelan Congress meets it should be thrown out, then the company formed by the Duke de Morny will be obliged either to suspend operations after having already expended a large amount of money, or to continue at their own risk without the Government guaranty of 7 per cent. upon outlay, which is the backbone of the concession.

Of course, it is impossible to prophesy what Congress may do, but it is certain that if the contract should be approved it will be greatly modified, as the estimated cost of the road as accepted by Guzman Blanco, and upon which the 7 per cent, guaranty must be given by this Government, is scandalously in excess of even the most generous computation.

From the very beginning this project has been viewed but coldly by the Venezuelans, and with reason. As the traffic between Merida and Maracaibo is comparatively insignificant, the former city being situated in the poorest part of the Cordillera, it is difficult to see how a fair interest above running expenses can possibly be obtained upon the capital invested, and for many years, should the concession be finally approved, the people of this country would be taxed to maintain a line which really offers but few advantages, and the whole affair has borne such an unmistakable odor of a job in favor of the contractor that the only friends of the project are the few who for various reasons may be directly interested.

It is true that a railway from Lake Maracaibo to the rich coffee regions of the Cordillera is a necessity, but Merida is the worst possible point that could have been selected, and the projected road from San Cristobal the seat of one of our consular agencies, to which I will have the honor to refer in a subsequent report, will fill all the present needs of the situation.

Notwithstanding the unpopularity of the Merida contract and its lack of final approval by Congress, it was determined to begin work and trust to the influence of Guzman Blanco to straighten out all difficulties, and in January last, as previously stated, Chief Engineer Burr arrived as representative of the construction company, and it is to the result, or rather want of result, of the operations of the past ten months that I desire to call attention.

These details may not appear of great interest, but will be appreciated by railroad men at home who may some time be engaged in similar enterprises in this country, and, as one of the results of the Pan-American Congress will be to call particular attention to the South American republics and the fields there offered for the enterprise and capital of our people, it seems to be especially appropriate just now to explain clearly the industrial situation.

The history of the Merida road, from the beginning of the work up to the present, is simply a record of mistakes in administration and management.

The starting point of the railway is at the town of Santa Barbara, situated on the River Escalente, 30 miles from its mouth, which latter is at the southern extremity of the lake, about 100 miles from Maracaibo.

The chief engineer established his head-quarters in this city, where he has remained almost constantly, exercising no personal supervision over the work.

For convenience of survey the line was divided into two sections, the first from Santa Barbara to the foot of the mountains, and the second from this latter point to Merida.

The first section, comprising an almost level plain, was placed in charge of Mr. J. T. McGauran, a well-known New York engineer, and the second under control of Mr. C. Corner with a corps of American assistants. The personnel of the staff appeared to leave nothing to be desired, but nevertheless ten months have elapsed, a large amount of money has been expended, and comparatively nothing done. Want of personal inspection on the part of the chief engineer may have been at the root of the matter, as, without being actually present at times in the field, it has naturally been impossible for him to keep thoroughly posted as to the necessities of the situation, and the enterprise, as far as the practical part is concerned, may be considered acephalous.

This had its natural result, dissatisfaction ensued among the assistants, several of the American engineers having presented complaints at this consulate for non-fulfillment of details of contracts made with them in the United States and for other reasons, many of these complaints being, no doubt, well founded.

The work progressed very slowly and unsatisfactorily, and to-day, more than ten months after the initiation of the surveys, they are not yet completed, although the entire distance is but 30 leagues. It will be remembered, moreover, that this is a climate of perpetual summer, where inclemency of the weather is not a factor in the consideration of obstacles. It will seem almost incredible to our railroad people in the United States that, with ample funds and competent engineers, ten months have not sufficed to complete the survey of less than 100 miles, one-half of that distance being a level plain.

In the meantime the company in France has dispatched many ship-loads of rails, locomotives, etc., expecting that at least the first section would be entirely finished and trains running before now. The fault has been want of administrative judgment, and the working staff as first organized has now gone to pieces, and within the past few days a large party of engineers (all French) have arrived to replace vacancies. Mr. Burr, as far as is now known, still remains as chief engineer, although some of his former subordinates have made complaints against him to head-quarters at Paris. It is true that in this country the administration is much more difficult than at home, but in the matter of the Merida road there has been such an absence of good judgment and administrative tact as to serve as a warning to impresarios in the future.

Lake Maracaibo is fed by about one hundred and fifty rivers, each one extending far inland, making the circumference of the lake an almost continuous swamp, with occasional stretches of solid ground between the river systems. It will therefore be readily seen that a railway from the Cordillera could not possibly arrive at the city of Maracaibo except by an enormous expenditure of money, far in excess of the most costly works of a similar character in any part of the world. A convenient port on one of the lake tributaries must be selected as a terminus, and from there steamers must connect with Maracaibo. This naturally necessitates a system of lake and river navigation in connection with the railway, and, recognizing this fact, the contractor was ill-advised enough to have a clause placed in the concession giving him the exclusive right of lake navigation. The absurdity of this is evident when it is considered that hundreds of sailing vessels have for generations traversed the lake and rivers, giving employment to thousands of people, and that there already exist various steam-ship lines, some under American charter. Appreciating this, the company formed by de Morny hastened to explain that this exclusive privilege only extended to steam navigation, which is also a ridiculous assumption, as for years American companies organized in New York and doing business under Venezuelan license have been actively engaged in the navigation of the lake and its rivers, and their exclusion would now bring about an international question.

It is much to be regretted that our own countrymen have not taken part in railway matters in this Republic, and the general opinion, as freely expressed in this section, is to the effect that if the Merida road, with all its natural drawbacks and unpopularity, had been from the first under American control the result to-day would be very different.

As the case now stands, time and money have been wasted, the prestige of the constructors has received a severe blow, and the only thing tangible to show for so many months of work and such a large outlay is an incomplete survey and a few hundred yards of track laid at the village of Santa Barbara. It is expected that the recent arrival of the new staff from France may bring order out of chaos; but a very different system must be adopted, and even should the survey and construction now proceed satisfactorily, yet it is doubtful whether Congress, in its session of February next, will approve the concession, even under modified and more reasonable conditions.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, December 6, 1889.

THE COAL-MEASURES OF COAHUILA.

REPORT BY CONSUL FECHÉT, OF PIEDRAS NEGRAS.

As the Republic of Mexico is generally regarded as barren in coal-measures of commercial worth, a statement of what has actually been accomplished in the past three years in proving the existence of extensive coal areas and in their development in a portion of the state of Coahuila will be of value.

The region of country bordering the Rio Grande River, from above Eagle Pass to below Laredo, Tex., and extending westerly and southerly over 100 miles in the state of Coahuila, belongs geologically to the cretaceous period. In the Rio Grande region the coal-measures, as seen in the hills around Eagle Pass, Tex., and at Laredo, belong to the "Fox Hills" group in the classification of geologists.

This Rio Grande coal belongs to the class of cannels or semi-cannel coals. Cannel coals are valuable for household and general use as fuel, either for heat or steam production, and also for the manufacture of gas or the distillation of oil, but are valueless for manufacture of coke.

The Sabinas coal, as the Coahuila coal is called, on the other hand, is a highly bituminous coal, yielding by analysis from 60 to 70 per cent. carbon, and produces an excellent grade of coke admirably adapted to all smelting purposes, whether of iron or the ores of the precious metals.

The extent of the coal areas in the state of Coahuila is not yet definitely determined, and hence this report will be limited to a general description of the coal areas that have been explored and are now being actually developed by the companies representing American capital, the Coahuila Coal Company and the Alamo Coal Company. These companies jointly own about 51 square leagues of territory, or about 220,646 English acres. This immense area is traversed by the track of the Mexican International Railway, and embraces a large portion of the valleys of the Sabinas and Salado rivers.

Sabinas station, on the Mexican International, is 73 miles from the Rio Grande River at Piedras Negras, and has an altitude above sea-level of 1,116 feet.

From Sabinas there is a standard-gauge railroad 13 miles to the coal mines at San Felipe and Hondo, where the coal companies have their main works. Here are offices, store-houses, miners' quarters, mining machinery, and all appliances for mining and shipping coal in large quantities. Explorations over this large area by prospecting shafts and the diamond drill have conclusively demonstrated that two and perhaps three coal horizons underlie this territory. The uppermost in the geological series of these coal formations is known as the "Laramie" group, and the one that belongs immediately beneath it is the Fox Hills group.

The Laramie and Fox Hills groups are well-known coal-bearing formations in Colorado, Utah, and Wyoming.

In Coahuila coal formations the same conditions are found to exist as in all other western coal formations.

The entire region appears to have been disturbed by some convulsion of nature, so much so that the coal horizons, instead of lying in horizontal planes, can be more accurately compared to an undulating inclined plane. The disturbing cause or force seems to have been exerted along a path from south-southwest to north-northeast, leaving the ridges and depressions running nearly west-northwest and east-southeast, and hence at many points the strata have been greatly disturbed and broken up and faults occur in the continuity of the coal-bed.

At some points the strata are nearly horizontal and in close proximity; have changed to an inclination of from 30° to 40°. Other peculiarities of the formation were caused, probably, by forces at work simultaneously with the deposition of the coal material. The district was doubtless acted upon by swift currents of water that washed away portions of the vegetable material (basis of future coal), and clays were deposited in its stead.

Subsequently other coal material was deposited over the clays, and clays in process of time changed to argillaceous shales. These shales, representing what coal miners call a "horse," where no subsequent deposit of coal material was laid down, only a thin scale of coal will be found. Hence coal mining in the western coal formations in Utah, Colorado, and Wyoming, in the United States, and here in Coahuila, is subject to about the same conditions, viz, varying thickness of the coal-beds, even within short distances, and to greater or less variation in the quality of the coal within equally circumscribed limits. The variation in thickness may extend even to an entire absence of coal from certain portions of the bed, and variation in quality may range from fine coal to merely carbonaceous shale. These varying conditions in thickness and quality necessitate careful explorations with the diamond prospecting drill. This has been very exhaustively performed over large areas by the coal companies established at San Felipe and Hondo.

The Laramie strata can be traced along the north side of the Sabinas valley, a distance of nearly 40 miles, beginning a few miles above Sabinas station of the Mexican International Railroad and extending southward down the valley.

On the south side of the River Sabinas, some 20 miles from Sabinas station, coal croppings are found in strata equivalent to the Fox Hills group.

As coal of either the Laramie or Fox Hills age, or both, is well known to exist in Colorado and New Mexico along the eastern slopes of the mountains, it is evident that there is a belt of these two coal-bearing formations extending nearly or quite continuously from the valley of the South Platte in Colorado to the state of Nuevo Leon, Mexico. The coal at Sabinas is the only coal found anywhere in northern Mexico suitable for iron smelting and kindred metallurgical processes.

At many points on the Sabinas River thick beds of argillaceous shales occur, mixed with alternate layers of iron-stone. This iron-stone, it is believed, will some day prove of immense value for manufacture of pig-iron.

The argillaceous iron-stone of the Sabinas region, the mountains of magnetic iron ore in the neighborhood of Monclova, and the limestone found all over the country, in connection with the Sabinas coal and coke, comprise all the materials and requisites for the manufacture of iron.

The extension of the Mexican International Railroad to Durango will bring Sabinas coal and coke to the famous iron mountain of Durango.

When one considers that save at the Sabinas coal mines no coal is anywhere mined in all the territory of Mexico, and bearing in mind, too, the equally important fact that Sabinas coal produces a fine grade of coke, the immense value of these coal mines, now producing over 8,000 tons of coal per month, to Mexico is apparent. This coal is sold to the Mexican International and Mexican Central railways, shipped to the city of Mexico, and about 3,000 tons monthly is exported to the United States at Piedras Negras for the Southern Pacific Railway.

The development of iron manufacture, that is, producing pig-iron from iron ores, and of the thousand attendant industries, will be of incalculable benefit to Mexico, as at present Mexico purchases all her iron and iron manufactures.

It is quite possible that the full development of the iron industries of Mexico, now for the first time made possible, or even probable, by the demonstrated fact that coal yielding an excellent coke exists in inexhaustible quantity in the Sabinas region, will prove of greater value to Mexico, will contribute more to the real comfort and well-being of her people, and add more to the real greatness and wealth of the Mexican nation than have her immense resources in the precious metals.

So, to-day, in the United States, the united industries of coal and iron add more to the national wealth, strength, and prosperity than does the total yield, immense as it is, of our mines of the precious metals.

EUGENE O. FECHÉT,
Consul.

UNITED STATES CONSULATE,
Piedras Negras, December 6, 1889.

TRADE AT PIEDRAS NEGRAS.

REPORT BY CONSUL FECHÉT.

In the absence of all complete and reliable data directly obtained, showing values of exports from the United States at inland ports, an effort has been made to reach results for the port of Eagle Pass, Tex., that will be very nearly correct. The statistical results, while obtained somewhat indirectly, are accurately compiled.

Through the courtesy of the collector of customs at Piedras Negras, I have been enabled to make a complete and partly classified statement of all imports entering Mexico at this port for the year ending June 30, 1889, (inclosure No. 1). These imports comprise the direct exports from the United States and goods in transit through the United States coming from foreign countries other than the United States. Inclosure marked No. 2 shows the value of bonded goods entering Mexico at this port for the past fiscal year.

The total value of $713,987.73 is made up from values of European goods and certain United States products shipped out of the United States in bond for benefit of drawback duties or internal revenue taxes, such as beer, whisky, sugar, manufactures of iron, etc. The value of such bonded exports from the United States at this port for past fiscal year is $85,665.86. Deducting this amount from the total value of all bonded goods and there remains $628,323.87, United States coin, as the value of foreign goods other than from the United States that were imported at Piedras Negras during the past fiscal year.

The principal articles of the European imports are steel rails, machinery, cotton ties (iron), woolen, cotton, and silk goods, ready-made clothing, cotton thread, cutlery, glass, china, and earthen ware, wines and brandy.

Deducting the amount of $628,323.87, value of European imports, from total value of imports and there remains $1,556,116.53 for value of exports from the United States at Eagle Pass, Tex., for the past fiscal year.

In the statement of imports we find certain articles that come solely from the United States, viz: Cotton in bales, $624,730.49; lumber and its manufactures, $35,920.57; and petroleum, $14,225.80; or a total value of these three articles of $674,876.86, leaving $881,239.69 for the value of all other exports from the United States.

Unfortunately, we can not determine the exact value of American live stock included under the heading "Merchandise free of duty, $709,527.94," statement No. 1, or the value of flour, canned goods, American cured meats, etc., included in the heading "Food products, $235.009.39" (same statement); but the values of American live stock and food products, added to the value of the cotton, lumber, and petroleum, will not leave much more than $500,000 as the value of all remaining United States exports to Mexico at this port. This leaves but a small margin for lines of manufactures in which we are supposed to excel. This showing is not creditable to our so much boasted energy in opening up new avenues of trade.

Mexican importations amount annually to a large sum, the greater part of which would be from the United States provided our merchants and manufacturers shall send out well-informed agents possessing a knowledge of the Spanish language and of the habits and resulting needs of the Mexican people.

In extending trade in Mexico the employment of commercial travelers, as in the United States, where the agent penetrates all regions, canvassing each village and hamlet, is not practicable. In all cities and towns of any size and of commercial importance in Mexico are reputable firms of importers, who, in turn, sell to the smaller towns and villages. Agents sent out from the United States should only deal with these firms, and from them can receive information as to grades, kinds, qualities of goods, packing, invoices for frontier customs, etc., so absolutely essential to trade with any foreign country. As this report well illustrates the roundabout and indirect way resorted to in order to obtain statistics of American exports at inland ports, it seems proper to here strongly urge that our inland frontier custom-houses be provided with means of collecting export data for statistical purposes. I believe Congressional action will be required; if so, the first step should be a law requiring the filing at the custom-house of a sworn list of exports. This list should state quantities and values. A monthly summary or abstract of such export lists should be furnished the chief consular officer of the adjacent foreign district.

EUGENE O. FECHÉT,
Consul.

UNITED STATES CONSULATE,
Piedras Negras, November 15, 1889.

[Inclosure 1 in Consul Fechét's report.]

Importations at Piedras Negras, Mexico, for the year ending June 30, 1889.

Imports.	Value in Mexican silver.	Value in United States coin.
Merchandise free of duty	$960,119.00	$709,527.94
Cotton (8,426 bales)	764,182.00	624,730.49
Linen and linen textures	13,499.00	9,945.76
Woolen goods	86,706.00	63,035.73
Silks	6,032.00	4,457.65
Silks, with other materials	22,246.00	16,539.80
Food products	318,010.00	235,009.39
Earthen and glass ware	31,475.00	23,260.03
Metals and manufactures of metals	191,173.00	141,276.95
Quicksilver	25,875.00	19,121.63
Machinery	132,308.00	97,775.61
Water iron	36,827,00	27,215.15
Fire-arms, powder, and ammunition	17,258.00	12,753.66
Lumber and its manufactures	48,607.00	35,920.57
Paper, card-board, etc	29,574.00	21,854.19
Crude petroleum and refined	19,223.00	14,225.80
Drugs and chemical products	141,170.00	104,314.63
Various articles (unclassified)	111,657.00	82,514.52
Total	2,955,941.00	2,184,440.40
Less foreign goods in bond		628,323.87
Value of American exports to Mexico, port of Eagle Pass		1,556,116.53
Items entirely from the United States:		
Cotton in bales		$624,730.49
Lumber and its manufactures		35,920.57
Petroleum, crude and refined		14,225.80
Total (three articles)		674,876.86

NOTE.—Mexican dollar = 73.9 cents.

[Inclosure 2 in Consul Fechét's report.]

Statement showing values of goods arriving at Piedras Negras, Mexico, in bond from the United States for the year ending June 30, 1889.

First quarter, ending September 30, 1888	$236,177.69	
Second quarter, ending December 31, 1888	152,112.19	
Third quarter, ending March 31, 1889	171,705.90	
Fourth quarter, ending June 30, 1889	153,993.95	
		$713,989.73
United States products in bond:		
Beer	$27,928.45	
Whisky	4,078.79	
Sugar	15,510.00	
Funday water	2,215.05	
Petroleum	10,875.00	
Iron manufactures (for benefit of drawback duties), galvanized barbed wire, shovels, scoops, telegraph wire, etc	25,058.57	
		85,665.86
Value of foreign goods other than from the United States		628,323.87

FRENCH RAILWAY CONTRACTS IN GUATEMALA.

REPORT BY CONSUL-GENERAL HOSMER.

I have the honor to inclose copies, with translations of the contracts made with the Government of Guatemala by M. Henri Louis Félix Cottu, severally, for the emission of a loan of $21,312,500 (gold), and for the construction of a national railroad to the Atlantic, for account of Guatemala, and agreement on the part of M. Cottu for the transfer of the property of the Guatemala Central Railroad to the Republic of Guatemala.

These documents may be briefly summed up to the effect that Guatemala issues a loan for $21,312,500 in gold, with interest at 6 per cent. per annum, redeemable in forty-five years at the rate of one-half of 1 per cent. per annum, in excess of the interest, which M. Cottu, in behalf of his syndicate, takes up at 80 per cent., the sum of $3,750,000 in gold being employed out of the the loan in the purchase from Mr. C. P. Huntington and other American citizens of the bonds and stock and all property of the Guatemala Central Railroad under a preliminary agreement made by M. Cottu with the owners of that road in New York, which gave him a "call" on the same until October 31, 1889.

Whereupon the President of Guatemala and his ministers make a contract with M. Cottu to build the so-called Guatemala National Atlantic Railroad, to extend between this capital and the port of Santo Tomas, "for account of the State and by a company which he himself will form," together with a wharf at the latter port that will permit ships drawing 23 feet of water to lay alongside.

The length of the road is to be 300 kilometers, and its cost, including that of the wharf at Santo Tomas, is fixed at $10,000,000.

Surveys are to be commenced within six months of the approval of the contract by the Legislative Assembly, effective construction work within one year, and the whole to be completed within four years afterwards, "unless the Government, by reason of *force majeure*, on behalf of a petition from the contractor, agrees to prolong the mentioned term of four years."

And, finally, M. Cottu agrees to transfer to the minister of finance of Guatemala the contract he made with Mr. Huntington, of New York, by which Guatemala will acquire possession on the 31st of October of the present year of all the property of the Guatemala Central Railroad, "with all the stock, rights, shares, obligations, concessions, and privileges that belong to it."

An examination into the details of the contract to build the road from this capital to Santo Tomas, on the Atlantic coast, including the wharf at that port, clearly demonstrates that while the ownership of the franchise is nominally that of Guatemala, it is wholly a foreign corporation.*

JAMES R. HOSMER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Guatemala City, September, 1889.

THE LOAN EMISSION.

[Inclosure 1 in Consul-General Hosmer's report.—Translation.]

The secretary of state in the department of the treasury, duly authorized by the President, on the one side and M. Henri Louis Félix Cottu on the other have celebrated the contract as contained in the following articles:

ARTICLE 1. The Government of Guatemala will issue a loan of $21,312,500 gold, or 106,562,500 francs, furnishing bonds therefor of $20 gold, or 100 francs, each, with the right to increase the value of these bonds to $200 gold, or 1,000 francs. The bonds issued will draw interest at 6 per cent. per annum, and will be redeemed in the course of forty-five years at the rate of one-half of 1 per cent. per annum in excess of the interest.

ART. 2. M. Henri Louis Félix Cottu will immediately take the loan, accepting the bonds at 80 per cent. gold, and will pay their value as follows: Fifteen days after the emission of this loan in Europe M. Cottu will deliver to the representative of Guatemala in Paris, or to the banks that the Government may designate in London or Paris, the sum of $7,050,000 gold, or 35,250,000 francs, which amount will be employed as follows: (1) $2,000,000 gold, or 10,000,000 francs, to the order of the Government, to better the situation and financial condition of the country; (2) $3,750,000 gold, or 18,750,000 francs, for the payment of the bonds and stock of the Guatemala Central Railroad, as per conditions of the respective contract; (3) $1,300,000 gold, or 6,500,000 francs, will be kept on deposit by the Government in order to meet the interest and amortizement of $10,000,000 gold, or 50,000,000 francs, during the term of the construction of the national railroad to the Atlantic. The balance of the loan, that is to say, $10,000,000 gold, or 50,000,000 francs, will be deposited by M. Cottu in the banks that the Government may select in London or Paris until the "calls" are made for the work of the construction of the national railroad to the Atlantic, according to the terms of said contract.

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* NOTE.—A dispatch from Consul-General Hosmer, dated October 1, 1889, says that the ratification by the National Assembly of Guatemala of the contracts made by the executive officers and M. Cottu occasioned much public rejoicing in Guatemala City.

ART. 3. In consequence with what has been agreed upon in the foregoing article, the Government is only responsible for the value of the interest and amortizement from the time these calls are made. These amounts, which will be employed in the work of construction of the Guatemala national railroad to the Atlantic, will be made by the mutual consent of the Government and M. Cottu, in such wise that there will always be on deposit in the banks the sum of at least $1,000,000 gold, or 5,000,000 francs, for said object.

ART. 4. For the payment of the interests and amortizement of the loan the Government destines (1) the net earnings of the Guatemala Central Railroad; (2) the net earnings of the Guatemala National Atlantic Railroad, from the time it commences to be operated, either in parts that may be finished or as a whole; (3) the deposit of $1,300,000 gold, or 6,500,000 francs, during the time of the construction of the national railroad to the Atlantic, as per terms expressed by article 2. Besides, the Government gives as a guaranty for the full payment of interest and amortizement of this loan the revenue derived from the tax on liquors. It is further understood that the Central Railroad and the National Atlantic Railroad guaranty the capital of the loan until the redemption of the same is complete.

ART. 5. The funds destined for the payment of the interest and amortizement of the loan should be sent to the banks, which will be selected by the Government and contractor later on, one month before falling due. Said interest and amortizement will be liquidated every six months and paid in gold; it being understood that said funds once deposited can not be withdrawn.

ART. 6. M. Henri Louis Félix Cottu will pay all expenses of the issuing, commission, and other expenses necessary for making the loan, except the printing of the titles, which will be done for account of the Government.

In faith of which and for proper record this document is signed in duplicate in Antigua, Guatemala, eighth of September, eighteen hundred and eighty-nine.

RAFAEL SALAZAR.
H. COTTU.

Approval of the preceding contract.

ANTIGUA, GUATEMALA, *September 8, 1889.*

Having been brought to my view the contract celebrated on this date between the secretary of state in the department of the public treasury and M. Henri Louis Félix Cottu, of Paris, concerning the negotiation of a loan of $21,312,500 gold, or 106,562,500 francs, and finding it in accordance with the instructions that were given regarding same, and that the stipulations that are contained in it are favorable to the interests of the nation, the President of the Republic agrees to approve the six articles contained in the said contract.

Let it be communicated.

(Signed by the President.)

The Secretary of State in the Department of Foreign Affairs:

MARTINEZ SOBRAL.

CONTRACT FOR CONSTRUCTION OF RAILWAY.

[Inclosure 2 in Consul-General Hosmer's report.—Translation.]

The secretary of state in the department of public works, duly authorized by the President of the Republic, on one side and M. Henri Louis Félix Cottu on the other have celebrated the contract contained in the following articles:

ARTICLE 1. The Government of the Republic of Guatemala commissions M. Henri Louis Félix Cottu, representative of a financial syndicate, to construct or to have constructed, for account of the State, and by a company which he himself will form, the railroads in project between the capital and the port of Santo Tomas that the Government has already commenced, and which will hereafter be called the Guatemala National Atlantic Railroad.

M. Henri Louis Félix Cottu, or the company he will form, will likewise construct, for account of the Government, connecting with the railroads in the port of Santo Tomas or near it, a wharf that will permit ships drawing at most 7 meters of water to come alongside. This wharf will be fully supplied with the necessary apparatus to insure safety in the embarking, loading, and unloading of passengers and merchandise.

The work that this contract refers to will be done as per specifications that have been agreed upon separately, and which are considered a part of this contract.

ART. 2. The value of the construction of the railroad and wharf has been fixed at $10,000,000 gold, or 50,000,000 francs, which amount the Government will pay M. Henri Louis Félix Cottu, or to the company he may form, in order that the construction may be carried out in the manner which further on will be expressed.

The length of the line of road is estimated to be 300 kilometers, and the amount determined on will not be modified nor changed, even though the length be increased or shortened by a definite survey.

ART. 3. The payment of the amount to which the previous article refers will be made thus: (1) 500,000 francs for the expense of surveys and plans of the line of road fifteen days after the Government of the Republic of Guatemala issues the titles which pertain to the construction of the Guatemala national railroad to the Atlantic; (2) during the same term mentioned of fifteen days 1,500,000 francs for the survey and plans of the construction of the wharf; (3) the balance of the amount stated in article 2, or, say, 48,000,000 francs, will be paid in twelve even amounts, that is to say, 4,000,000 francs for each section of line of 25 kilometers that the contractor delivers to the Government ready for operation, with its embankments, bridges, viaducts, ties, rails, rolling stock, stations, etc., it being understood that the sections here referred to must be continuous and not be interrupted, in order that they may be utilized immediately. This will not prevent the contractor from carrying on the construction from both terminal points at once, in case he should so choose to do.

The amount corresponding to the last twelfth part will be paid over to M. Cottu, or to the construction company, whether the length of the last section be greater or less than 25 kilometers.

On the Government receiving to its satisfaction and paying for the section of line delivered, it will be understood to be definitely received, and the contractor will not have any further right over it than to transfer and transport his construction materials and workmen in the cars set apart for the construction work.

ART. 4. The product of the sale of the titles, applied by the Government of the Republic to the construction of the Guatemala National Atlantic Railroad, will be deposited in Paris or London, in some creditable establishment selected by mutual agreement, and said product, with the exception of the portion pertaining to interest and amortizement, will be exclusively destined to the future payments described in the foregoing article. These payments will be made by the bank depository on presentation of an act signed by the representative of the Government and by the director of the company, the conclusion of the respective work in each case being expressed.

The said payments may also be made by virtue of telegraphic advices, certifying to the existence of the act above referred to. In this case the telegram should bear the signature of the representative of the Government and that of the director of the company, and be simultaneously sent to the bank depository and to the minister or consul of the Republic of Guatemala resident in the city where the bank depository is established.

ART. 5. The Government will deliver, by inventory, to M. Henri Louis Félix Cottu, or to the construction company, in order that they may utilize and employ on the work, all the materials and stock pertaining to the Northern Railroad Company that may be in Santo Tomas and Port Barrios, or along the line of road, besides, also, the embankments made, buildings, tools, rails, ties, etc., and all the plans and surveys relative to said railway that they have in their possession, all of which will be returned to the Government in case of failure to carry out this contract or on conclusion of the work, taking only to account the normal depreciation of the materials by use.

ART. 6. The line will be constructed according to the general direction indicated by the plans of the Northern Railroad, which the Government has had made, a tracing of which has been sent to M. Henri Louis Félix Cottu. The company nevertheless will have the right to modify said plans and surveys where it may deem convenient for the better execution of the work, doing all possible to keep out of the Chinantla Valley and take another direction towards the River Matagua. The final plans and surveys for the work of the railroad will be concluded within nine months, counting from the time of the approval of the contract by the legislative assembly.

The plan of the line will be submitted to the minister of public works for his approval, in sectional surveys, whose length will not be less than 50 kilometers. The minister will require one month to indicate whether the plan is in accordance or not with the specifications stipulated in the contract. If within this time the minister gives no reply, it will be understood that the plan is accepted. Still, after the plan has been accepted and work under way, the company has the privilege of introducing modifications in the details, but without materially altering the principal bases of the annexed specifications, and acting in accord with the direction of a technical commission, which will be formed for said object, composed of the engineer in chief of the company, an engineer named by the Government, and another to be selected by the two engineers.

ART. 7. The Government cedes gratuitously to M. Henri Louis Félix Cottu, or to the company that he may form, the Government lands necessary for the construction of the railroad, its stations, offices, shops, warehouses, or turnouts for roads or rivers. The line will have a right of way of 40 meters in width, and for the stations, turnouts, warehouses, shops, etc., a sufficient ground for their good installation. In case the line runs through private grounds where it may be necessary for the company to construct buildings, stations, switches, or open roads for the transport of materials, the Government will expropriate for its own account the space necessary for the execution of the work, it being understood that the company, when it has to occupy said lands, will give previous notice to the Government, in order that it may lose no time in the matter of expropriation. The Government compromises itself to act as promptly as the law will permit. If it should be necessary to occupy any portions of the high-roads, the company may do so by leaving sufficient space for the traffic to pass freely.

ART. 8. The railroad being national property, the constructors have the right to take, free of all cost or indemnization, from any spring, fount, or river all the water they require for the use of the workmen, machinery, and, in general, for all that the execution of the work may demand. They may also take without payment or indemnization all materials, as stone, lime, lumber, etc., on Government lands. Moreover, if necessary to employ materials belonging to private parties, the Government will expropriate them for its own account, in order that the contractor may enjoy the use of said materials gratuitously.

ART. 9. M. Henri Louis Félix Cottu, or the construction company that he may form, may, during the whole time of the construction, introduce through the ports now open, or that may be opened in the future, without payment of any fiscal or municipal duty or tax now established or that may be established, all fixtures, appurtenances, machinery, wagons, carts, cars, tools, and necessary materials for the construction of the railroad. Besides, the moneys, books, titles, letters, and documents issued or drawn by the company during the construction will be exempt from all fiscal or municipal duty or tax. During the same time the following will be free and exempt from all taxation: The ships that bring materials for the company, correspondence by telegraph and by mail in the interior of the Republic; also, provisions, food, clothing, and other manufactured articles exclusively imported for the use of the workmen, and which quantity will be settled on every six months previous to ordering by a detailed list, which the contractor will present to the minister of public works, in order that he may regulate it in accordance with the number of men employed on the railroad. The employés and workmen of the construction company who may not be natives of Guatemala will be exempt from all personal contributions.

Art. 10. M. Henri Louis Félix Cottu, or the construction company that he will form, under penalty of the forfeiture of the contract, compromise themselves to commence the study of the line within six months, and the effective construction work within one year, counting both periods of time from the date of the approval of this contract by the Legislative Assembly, and to finish the whole work in four years, which time will count from the expiration of the said term of one year, unless the Government, by reason of *force majeure* on behalf of a petition from the contractor, agrees to prolong the mentioned term of four years. The contractor, moreover, compromises to complete within the term of eighteen months, counted from the same date, the wharf and the first 30 kilometers already commenced by the Government, running from the port of Santo Tomas.

Art. 11. M. Henri Louis Félix Cottu, or the company he will form, may import into the country the number of workmen required according to the progress of the work, but the Government compromises to furnish for account of the contractor the greatest number of workmen possible, which will not be under one thousand. The payment of the workmen that the Government furnish to the company will be at the rate of 75 cents per day of ten hours to the peons and $1 to the foremen. The pay will be in the money of the country. An increase of the pay per day for whatever cause can not be made without the mutual agreement of the Government and contractor. In case said agreement can not be arrived at the contractor will have the right to look for laboring hands in the places and under the conditions he may deem most convenient.

Art. 12. M. Henri Louis Félix Cottu, or the construction company he may form, will guaranty the fulfillment of their compromise by depositing in a bank of Paris or London selected by the Guatemala minister in Paris, and three months from the time this contract is signed, the sum of $100,000 in gold or its equivalent in titles of French or Guatemala revenue, or in other titles quoted in the exchanges of Paris or of London which may be considered by the minister to have a real value. This amount will remain on deposit during the construction of the work, and will revert to the Government in case the contractor fails to comply with his obligations contracted.

Art. 13. In order to maintain order along the line, the Government will invest with public and police authority the employés selected for such purpose by the contractor, who must be citizens of Guatemala. In order to avoid the abuse that the establishment of saloons may cause, it is agreed that without previous arrangement with the contractor no permits will be issued during the work of construction for any liquor shops outside of the centers of the town, where they are now at present.

Art. 14. If, in the term of five years, the Government resolves to construct for its own account a railroad towards the frontier of Salvador or Honduras, or a line that may connect with the line referred to in this contract, all things being equal, M. Henri Louis Félix Cottu, or his construction company, will have the preference, which must be used three months after notification being given.

When, for economical reasons, the Government may resolve to construct a railroad towards Panzos and the town of Santa Lucia Cotzumalguapa, or any other point which may be crossed by the main line, M. Henri Louis Félix Cottu, or his construction company, will have the privilege to build same on similar conditions to the one of this contract, with the alterations that may be agreed upon.

Art. 15. It is agreed that no foreign government will take part in the construction company that M. Henri Louis Félix Cottu may form, and that there will always be a representative duly authorized in order to treat with the Government on all subjects relative to the construction of the railroad.

Art. 16. All questions relative to the interpretation or execution of this contract will be decided in accordance to the laws of the country by means of two arbitrators named respectively by each contracting party. The decision of these arbitrators, or that of a third selected by them in case of dispute, will be final and not to be appealed from.

In faith of which and for due record this contract is signed in duplicate in Antigua, Guatemala, September 8, 1889.

SALVADOR ESCOBAR.
H. COTTU,

Approval of the preceding contract.

ANTIGUA, GUATEMALA, *September 8, 1889.*

Having been brought to my view the contract celebrated on this date between the secretary of state in the department of public works and M. Henri Louis Félix Cottu, of Paris, on the construction of a national railroad, which, commencing from the capital of the Republic, will terminate at the Atlantic, and, considering that the construction of said railroad will fill a great social need, economic as well as financial, for the Republic; that every effort made for the establishment of that important line of communication is worthy of the applause of good citizens, and merits the help and efficient protection on the part of the Government; that the department of public works has closely adhered to the instructions given it for said object, and that the conditions on which M. Cottu compromises himself to construct the railroad to the Atlantic are favorable;

Therefore the President of the Republic of Guatemala agrees to approve the sixteen articles contained in the contract referred to.

Let it be communicated.

(Signed by the President.)

The Secretary of State in the Department of War:

MENDIZABAL.

RAILWAY TRANSFER.

[Inclosure 3 in Consul-General Hosmer's report.—Translation.]

By the present document M. Henri Louis Félix Cottu, of Paris, compromises himself to transfer to Señor Rafael Salazar, minister of finance of the Government of Guatemala, the contract which he has made with Mr. Huntington, of New York, and by virtue of which the Republic of Guatemala will acquire possession of the property of the Guatemala Central Railroad from the 31st of October of the present year, with all the stocks, rights, shares, obligations, concessions, and privileges that belong to it on that date, and whose total value of $3,750,000 gold will be paid, as expressed by said contract, from the amount of the loan that has been separately negotiated for and in accordance with article 2 of the said agreement, the Government thereby having the right to operate and dispose of said railroad from that date as their own property, and the undersigned compromises himself to have the road so delivered.

The transfer of the contract made with Mr. Huntington and the delivery of the railroad will be made with the legal formalities that the Government deems proper, and as a proper record and a showing of good faith I sign this document in Antigua, Guatemala, eighth of September, eighteen hundred and eighty-nine.

H. COTTU.

Mica in Guatemala.—Consul-General Hosmer, under date of December 6, 1889, reports that large beds of this mineral are to be found in the Republic of Guatemala at 15 leagues distant from Guatemala City, the capital. They are said to extend some 2 or 3 miles of continuous length, and are capable of being cut into elastic plates of extreme thinness, excellent for commercial purpose.

There being no occasion for the use of stoves in this climate to obtain artificial warmth, and the cooking being done either upon a primitive arrangement for burning charcoal or in ranges built of bricks and adobe, the employment of mica for home consumption is rendered unnecessary, and therefore the beds of mica have been as yet untouched.

Reports upon this mineral in North Carolina show that the article in question is worth $450 per ton, and that its refuse is good as a fertilizer. Such being the fact, the small cost for the labor of obtaining it in this country should make the quarrying and cutting of mica a most profitable undertaking as a matter of export. Access to the mica beds referred to is by a good cart road for some 6 leagues and the rest of the distance by mule-path.

AGRICULTURAL PRODUCTS OF COSTA RICA.

REPORT BY CONSUL WINGFIELD, OF SAN JOSÉ.

Bananas.—This industry was begun in Costa Rica about eight years ago, after the opening of the railroad from Port Limon, 70 miles to the interior. The banana plantations lie along the line of railroad on both sides. The limit of the production has been probably reached until new railroad lines are constructed. Eight hundred and ninety-six thousand two hundred and forty-five bunches of bananas were exported in 1888, all of which went to New Orleans and New York. There will be about the same quantity shipped this year.

Black beans (frijoles).—These are grown for home consumption; about 100,000 bushels produced in 1888. The prospect of the growing crop is good.

Chocolate beans.—About 300,000 pounds produced in 1888, and 100,000 pounds imported. There is a tendency to increase the production of chocolate. New plantations have been set out in the last few years, but will not come into bearing until six years old.

Coffee.—The average amount of coffee exported each year from Costa Rica is about 180,000 sacks, containing 125 pounds to the sack. The coffee harvest begins here the 1st of January and is exported from 1st of February to 1st of August. The crop of 1888 was a small one, about 150,000 sacks exported, and hardly enough is left in the country for home consumption. The prospect of coffee for the present year is good both as to quality and quantity. As the prices of coffee have ruled high for the past three years, farmers have given special care to their plantations, and, as the last two crops have been small, the trees are in fine, thrifty condition. The season up to the present time has been favorable, and, if it continues so, it is confidently expected that the crop will be considerably above the average.

Corn.—This crop is grown only for home consumption, and with fairly good seasons about enough is generally made for home use. In 1888 the crop harvested was 650,000 bushels, and 8,000 bushels imported. The prospect of the growing crop is good.

Potatoes (Irish).—Grown only for home consumption. In 1888 the estimated yield was 50,000 bushels. The section of country at the foot of the volcano of Irazu is specially adapted to the growth of potatoes, and there are in the markets at all seasons of the year as fine fresh potatoes as can be found anywhere in the world.

Rice.—This is grown for home consumption. In 1888 the crop was 50,000 bushels; 150,000 pounds were imported.

Sugar and dulce.—Quite a good quality of sugar is made here. The product in 1888 was 1,200,000 pounds, and 1,100,000 pounds imported. Dulce is crude sugar, largely used for family purposes and to make rum. The crop in 1888 was 13,000,000 pounds. No dulce was imported, but, owing to the low prices, the production of dulce had fallen off, and the Government, which holds the monopoly of making rum (aguardiente), imported a good deal of alcohol to make rum. There will be more, both of sugar and dulce, produced the current year.

Wheat and flour.—This country is not adapted to growing wheat. The crop of 1888 was only 8,000 bushels. There is only one flour-mill, and for this 10,000 bushels of wheat were imported. In addition 25,000 barrels of flour were imported.

Miscellaneous.—In addition to the above crops small quantities of rubber, hides, and shells are exported, but the rubber is gathered from the mountains and is less and less each year. Quite a number of tanneries have been established in the last few years, and the hides are largely tanned here for home use; and the Pearl Fishery Company, which exported pearls and a good deal of mother-of-pearl, has suspended operations. Oranges, mangoes, and other fruits and vegetables are grown in sufficient quantities for home consumption, but none exported. An inconsiderable number of cocoa-nuts are exported. In a word, the staple export crops of Costa Rica are coffee and bananas.

J. RICHARD WINGFIELD,
Consul.

UNITED STATES CONSULATE,
San José, August 1, 1889.

Matches in Guatemala.—Under date of October 15, 1889, Consul-General Hosmer reports that, although of comparatively insignificant consideration, the manufacture and supply of phosphorus matches is an important branch of modern industry and of general use among all classes of society in the civilized world. Guatemala imports annually 115,000 gross of wooden safety matches of Swedish, Danish, and German manufacture. These sell in this market for from $1.37½ to $1.50 per gross in Guatemalan currency, that is, about 98 cents to $1.07 in United States gold. Belgium also contributes to the supply, and a small quantity is imported from the

United States. These latter are of a better quality, are of colored woods, and sell at a higher price. There are, in addition to these wooden matches, 15,000 gross of wax imported, chiefly from Italy, into Guatemala. The duty paid on the importation of matches is 43½ cents per gross on the average weight of cases of 50 gross each.

THE NICARAGUAN CANAL.

REPORT BY CONSUL BROWN, OF SAN JUAN DEL NORTE.

Referring to previous dispatches relating to the work near this port on the projected interoceanic canal across Nicaragua that during the past year and eight months has been carried on under the auspices of the Nicaragua Canal Construction Company, of New York, I have to report that although the promoters of that company appear to recognize that their action is to some extent impeded and delayed by the objections raised by the Government of Nicaragua to the commencement of the so-called work of actual construction prior to the settlement of the controversy between that Government and that company in respect to the action of the company in negotiating with the Government of Costa Rica concerning the canal, which all Nicaraguans claim was to be constructed entirely within the territory of Nicaragua, and should be known as the Nicaragua Canal, still, by the care, diligence, and energy displayed in prosecuting the preliminary work, which must precede the work of construction, the promoters of the company demonstrated its good faith and confidence that it will be permitted and be able to successfully complete the ship-canal.

So successfully is that work of preparation progressing that all of the field of operations, situated in the eastern division, from this port to the dam, as projected, at Ochoa, about 40 miles west, is in such apt condition that the work of construction throughout its entire length could be put in active operation within a few hours after the receipts of notice that the objections on the part of the Government were withdrawn.

Along that portion of the projected route of the canal, a distance by the line of 31 miles, there are twenty-eight camps, occupied by engineers, artisans, and laborers. In addition to these there are eight working parties sent out from the camps along the line, and who are working on the proposed line of railroad, the line of telegraph, telephone, and about the site of the deposit of rock that will be serviceable in building the wharf and breakwater.

This force, as carried on the pay-rolls, numbers over five hundred persons, and is being increased daily by small additions.

Machinery, lumber, material, and supplies of all kinds suitable for the work have been arriving here during the past three months, conveyed to this port by the regular steamers plying between New York and San Juan, and by large sailing vessels chartered especially for the purpose. All of this cargo had been prepared for shipment to this port prior to the date at which the knowledge that the Government was disposed to stop the work on the canal had reached the general office of the company.

The sailing vessels, I am glad to be able to report, fly the American flag. One of these brought into the roadstead off this port and landed on the beach near the site of the proposed wharf and breakwater 363 piles 60 feet in length, 102 pieces of heavy timber, and 68 pieces of the frame-work of a "pole road outfit" (a sort of railroad). These included the frame of a locomotive, engine boiler, wheels, and other necessary parts of such a railroad.

Another three-masted schooner, sailing from the port of Wilmington, N. C., landed on the beach for the same work 393 piles 60 feet in length, 60 pieces of heavy timber, and other lumber.

The total value of these two cargoes was about $10,000, as shown by the manifests.

The greater part of the piles are creosoted to prevent their destruction by the worms which bore into and destroy piles placed in these waters.

The steam-ships *Aguan* and *Hondo* on their monthly trips to this port usually bring contract employés for the canal from New York, engaged by the general office in that city, such, for example, as engineers, surveyors, auditors, paymasters, and clerks needed about the head-quarters of the work of the eastern division. They also bring regularly more or less material and supplies of provisions.

Among other machinery thus brought and landed on the beach are the principal parts of twelve large pile-drivers for use in building the pier. These last mentioned, not completely erected, are located and ready to be put in operation as soon as needed.

The two houses sent out from New York for the use of officers of the work have been erected on the beach southwest of San Juan, and are now occupied by some of the officers.

One of these is a building 100 feet by 25 feet, two stories high. The first, as designed, is for quarters of officers, offices, and store-rooms, and the second story is for lodging-rooms of officers.

The other house, about 40 feet square and two stories high, was originally intended for the use of the chief engineer, who is expected to arrive soon.

The houses are located on the beach north of the road, about 3 miles from this port, and being to the windward of the canal, as located, and in situation to receive the benefit of a clear sweep of the trade winds blowing off the Caribbean Sea, must be in a healthy location.

Near to these houses a hospital is being constructed, the building having been designed in the United States and the lumber recently brought by one of the steamers.

About 20 miles of the telegraph has been completed, that is to say, the right of way has been cleared through the woods and swamps, the poles erected and connected by wires. For a distance of 8 miles communication by telegraph has been established, which results in a great saving of labor and time in communicating messages which formerly had to be sent by courier and canoe.

The most difficult part of the work of establishing a line of telegraph between this port and San Carlos (the 15 miles of swamps adjoining this town on the west) has been successfully accomplished by the force under Mr. H., who is now gone to San Carlos, at the mouth of the River San Juan, the terminus on the east of the Government line of telegraph, in respect to making communication by cable by way of San Juan del Sur.

The so-called railroad—a pole road—is expected to have its freight cars running along a part of the line into San Juan within a few days.

While I am not sufficiently well informed on the subject of expenditures made by the Nicaragua Canal Construction Company to enable me to estimate their amount, I may say that a gentleman here from New York, who is in intimate relations of business with the president and other officials of the company, and with whom I talked on that subject, approximated the amount expended by the promoters of this work since December, 1887, at the sum of $700,000, including the $100,000 deposited with the Government of Nicaragua. I call attention to these details because I have heard that there are influential citizens of this country who assert that there is doubt of the good faith of the promoters' action in carrying on the so-called work on the Nicaragua Canal, and doubts as to the ability and financial resources of those promoters to complete the Nicaragua Canal.

WM. A. BROWN,
Consul.

UNITED STATES CONSULATE,
San Juan del Norte, August 22, 1889.

FRENCH DECREE AGAINST IMITATION BUTTER.

REPORT BY CONSUL BARTLETT, OF GUADELOUPE.

I have the honor to transmit herewith the Official Gazette, No. 42, of May 24, 1889, wherein is inserted the law and its promulgation in Guadeloupe concerning adulterated butter. Up to the present there have been no seizures made, but there are liable to be at any time. I must say that the officials, as well as the citizens of this colony, are very reluctant to do any thing displeasing to us, owing to their good feelings towards the United States.

The merchants here demand cheap butter for cooking purposes, and this is largely imported from the United States; but in reality it is not butter, but composed of certain oily substances colored with annotto. Therefore, I would suggest that there should be some statute law whereby all manufacturers and exporters of so-called butter should have their packages branded, expressing truthfully the ingredients which compose the article contained in the package; and it would be well for the exporters to have a certificate from one of our officials, certifying as to the truth of the brand. Let pure butter be branded as such, and *vice versa.*

In making the foregoing suggestions you will please understand that my aim is to avoid all difficulties with these colonies and to place our butter trade therewith on unassailable grounds.*

CHARLES BARTLETT,
Consul.

UNITED STATES CONSULATE,
Guadeloupe, September 11, 1889.

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* The act of June 2, 1886, "for defining butter, and regulating the manufacture, sale, importation, and exportation of oleomargarine," would seem to cover every phase of the trade and give full protection to consumers, foreign as well as domestic. Of course, this law is inoperative once the material passes beyond the limits of the United States, and it would be impossible for the United States to protect foreign consumers where the foreign dealers saw fit to disregard the precise injunctions as to branding of packages, or selling that which was imitation butter for real butter.

The following sections of the law referred to would seem to be as direct and particular as legislation could make them:

"SECTION 2. That for the purposes of this act certain manufactured substances, certain extracts, and certain mixtures and compounds, including such mixtures and compounds with butter, shall be known and designated as 'oleomargarine,' namely: All substances heretofore known as oleomargarine, oleo, oleomargarine-oil, butterine, lardine, suine, and neutral; all mixtures and compounds of oleomargarine, oleo, oleomargarine-oil, butterine, lardine, suine, and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef-fat, suet, lard, lard-oil, vegetable-oil, annotto, and other coloring matter, intestinal fat, and offal fat made in imitation of or semblance of butter, or when so made calculated or intended to be sold as butter or for butter.

* * * * * * *

"SEC. 6. That all oleomargarine shall be packed by the manufacturer thereof in firkins, tubs, or other wooden packages not before used for that purpose, each containing not less than 10 pounds, and marked, stamped, and branded as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe; and all sales made by manufacturers of oleomargarine, and wholesale dealers in oleomargarine shall be in original stamped packages. Retail dealers in oleomargarine must sell only from original stamped packages in quantities not exceeding 10 pounds, and shall pack the oleomargarine sold by them in suitable wooden or paper packages, which shall be marked and branded as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe. Every person who knowingly sells or offers for sale, or delivers or offers to deliver, any oleomargarine in any other form than in new wooden or paper packages as above described, or who packs in any package any oleomargarine in any manner contrary to law, or who falsely brands any package or affixes a stamp on any package denoting a less amount of tax than that required by law, shall be fined for each offense not more than $1,000, and be imprisoned not more than two years.

"SEC. 7. That every manufacturer of oleomargarine shall securely affix, by pasting, on each package containing oleomargarine manufactured by him, a label on which shall be printed, besides the number of the manufactory and the district and State in which it is situated, these words: 'Notice—The manufacturer of the oleomargarine herein contained has complied with all the requirements of law. Every person is cautioned not to use either this package again or the stamp thereon again, nor to remove the contents of this package without destroying said stamp, under the penalty provided by law in such cases.' Every manufacturer of oleomargarine who neglects to affix such label to any package containing oleomargarine made by him, or sold or offered for sale by or for him, and every person who removes any such label so affixed from any such package, shall be fined $50 for each package in respect to which such offense is committed.

* * * * * * *

"SEC. 16. That oleomargarine may be removed from the place of manufacture for export to a foreign country without payment of tax or affixing stamps thereto, under such regulations and the filing of such bonds and other security as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may prescribe. *Every person who shall export oleomargarine shall brand upon every tub, firkin, or other package containing such article the word 'oleomargarine,' in plain Roman letters not less than one-half inch square.*

* * * * * * *

"SEC. 18. That if any manufacturer of oleomargarine, any dealer therein, or any importer or exporter thereof shall knowingly or willfully omit, neglect, or refuse to do, or cause to be done, any of the things required by law in the carrying on or conducting of his business, or shall do any thing by this act prohibited, if there be no specific penalty or punishment imposed by any other section of this act for the neglecting, omitting, or refusing to do, or for the doing or causing to be done, the thing required or prohibited, he shall pay a penalty of $1,000; and if the person so offending be the manufacturer of or a wholesale dealer in oleomargarine, all the oleomargarine owned by him, or in which he has any interest as owner, shall be forfeited to the United States."

DECREE OF MAY 8, 1888.

[Inclosure 1 in Consul Bartlett's report.—Translated by Mr. Charles M. Caughy, of the Bureau of Statistics, Department of State.]

ARTICLE 1. All persons employed in the collection of duties, those in the custom-houses and octrois, as well as those having under their control the market halls and market places, being duly sworn and commissioned, are authorized to procure samples of all butters that are exposed for sale, transported, exported, or imported, in order to test their purity.

Carriers, as well as the directors and agents of transportation companies, whether by land or water, are forbidden to place any obstacle in the way of samples being procured, and must produce invoices, bills of lading, receipts, and statements of the goods of which they are the carriers. Every sample must be specified by a special report.

ART. 2. Whether a sample is taken at the store of a retailer, a wholesaler, a consignor, or a consignee, or in the hands of a carrier, these persons are bound to make known the name and residence of the party from whom they obtained the merchandise.

If the merchant, consignor, consignee, or carrier decline to give the name and address of the party from whom the goods were obtained, and if he refuse to sign the report, mention of this fact must be made upon said report.

ART. 3. All samples secured by the agents specified in article 1 shall, in the presence of those from whom they have been obtained, be placed in jars or bottles, hermetically sealed and closed, and immediately sent to one of the experts appointed to such district by the prefects. Mention of the circumstances must be made on the report.

ART. 4. Pure butter, mixed butters, margarines, oleomargarines, and nutritive fats (*graisses alimentaires*) prepared for shipping must be packed in closed receptacles, on which must be stated in plain characters the product and the nature of the merchandise.

On their arrival at the custom-house, the packages are weighed, carded, and sealed, and a permit of free passage is given to the carrier or company for their transportation to the port of exit.

This permit determines the delay allowed for re-exportation.

The ministers of the interior, agriculture, and finance are ordered, so far as each is concerned, to see that the present edict is enforced.

LAW CONCERNING THE SUPPRESSION OF FRAUDS COMMITTED IN THE SALE OF BUTTERS.

[Inclosure 2 in Consul Bartlett's report.]

CHAPTER I.

(*Suppression of frauds in the sale of butters.*)

ARTICLE 1. It is forbidden to expose, put on sale, or to sell, or to import, or to export under the name of butter, margarine, oleomargarine, and, in a general way, any substances intended to supply the place of butter, such as the mixtures of margarine, grease, oil, and other substances with butter, no matter what the quantity thereof may be in the compound.

ART. 2. Any person who knowingly violates article 1 shall be punished by imprisonment of not less than six days nor more than six months and a fine of from 50 to 3,000 francs.

Those persons who refuse to give the name of the seller or consignor shall always be considered as being cognizant of the adulteration of the article.

ART. 3. All substances or mixtures fraudulently exposed, sold, or put on sale, imported, or exported, found in the possession of the guilty parties, must be confiscated according to the law of 27th March, 1851.

ART. 4. The court may always order that sentences imposed according to the terms of article 2 shall be published either in abstract or in their entirety, in such newspapers as they may indicate, or else posted in the localities or markets where the fraud was committed, as well as on the doors of the dwelling-houses and shops of the delinquents, and also at the mayor's office, all the expenses of which must be defrayed by said delinquents.

ART. 5. Should the offense be repeated within one year after a conviction, the highest fine shall always be imposed, and the sentence published and posted.

CHAPTER 2.

(*On the sale, transportation, and exportation of margarine, oleomargarine, and nutritive fats.*)

ART. 6. Every retail dealer in margarine, oleomargarine, or substances or mixtures designed to take the place of butter, must notify the purchaser that the substance or mixture sold to him is not butter, by delivering the said goods to him in a jar, bottle, or envelope bearing in plain characters the words "margarine, oleomargarine, or nutritive fats."

ART. 7. Every manufacturer or wholesale dealer, consignor, or consignee of margarine, oleomargarine, or similar substances, must place upon the kegs or boxes these words, either printed or burnt in, "Margarine, oleomargarine, or nutritive fats."

ART. 8. Manufacturers, dealers, consignors, or consignees of margarine, oleomargarine, or nutritive fats, or similar substances must designate on the invoices, bills of lading, etc., of each shipment of merchandise of this class, that the said merchandise thus shipped is sold as margarine, oleomargarine, or nutritive fats.

Every carrier and every company that transports goods by land or water must enter this designation upon their books, invoices, statements, and manifests.

ART. 9. Those who have been convicted according to articles 6, 7, 8 shall be punished by imprisonment of not less than six days nor more than one month, and a fine not less than 25 francs nor more than 1,000 francs, or one of these penalties only.

Carriers or transportation companies who shall be convicted according to the second paragraph of article 8 shall be punished by a fine of not less than 25 francs nor more than 500 francs.

ART. 10. In case of a repetition of the offense within one year of the previous conviction, the maximum fine shall always be imposed.

Trade of Tuxpan.—Under date of October 7, 1889, Consul Drayton reports somewhat of a decline of shipments from Tuxpan to the United States during the quarter ending September 30, 1889, amounting to about $40,950.75 less than the preceding quarter, probably owing to the withdrawal of one American steamer, thereby leaving but one to communicate during the month and whatever transient sail vessels which may happen to come for chartered freights, consequently there has been but four vessels arriving during this quarter.

The Spanish Transatlantic Steam-ship Company has been induced to place one of their steamers to the Mexican coast monthly, taking freight through to New York or Europe, as may be consigned, and has induced merchants to hold a considerable amount for them which was formerly shipped on the American line. They have reduced the return freights from New York to this port as an inducement for the same.

Finance and banking business is, as usual, done by a few merchants with houses in New York, money exchange ranging 35 and 38 per cent. premium on orders to the States.

Recent floods have opened the bar sufficiently to allow vessels drawing 10 feet to enter the harbor and take their cargoes from the wharves of the city.

AMERICAN LARD IN FRENCH COLONIES.

REPORT BY CONSUL BARTLETT, OF GUADELOUPE.

I have the honor to transmit herewith a letter from the French secretary of state to the governor of Guadeloupe, and also a petition from the manufacturers of lard to the chamber of commerce of Nantes concerning American lard, which were published in the Official Gazette No. 69, dated August 27, 1889.

I am led to believe that there will be no action taken at the forthcoming session of the general council, which takes place in December next. And I hardly think it will even be brought up for discussion, but at some future session I can not say what influence may be brought to bear upon that honorable body. In any event, I am quite certain that the manufacturers of lard in France will do all they can to stop the importation of lard from the United States, as they prefer doing the adulteration themselves.

Any one can see by the large quantities of cotton-seed oil exported from the United States to France, that there must be some use for it, either as a mixture for olive-oil or lard.*

CHARLES BARTLETT,
Consul.

UNITED STATES CONSULATE,
Guadeloupe, September 12, 1889.

IMPORTATION OF AMERICAN LARD INTO THE COLONIES.

[Inclosure in Consul Bartlett's report.†]

The Under-secretary of State to the Governor of Guadeloupe.

PARIS, *July 29, 1889.*

His Excellency the Governor.

SIR: I have the honor to transmit to you herewith, with its accompaniment, an extract of a letter addressed to the department by the president of the chamber of commerce of Nantes, relating to the importation of American lard into the Antilles. I respectfully request that you

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*The quantities and value of cotton-seed oil exported from the United States to Europe during the fiscal year 1888 were as follows:

To—	Quantity.	Value.	To—	Quantity.	Value.
	Gallons.			*Gallons.*	
Belgium	368,499	$146,580	Italy	284,956	$104,199
Denmark	2,550	1,026	Netherlands	1,797,800	803,820
France	1,062,140	445,609	Portugal	179,000	71,600
Germany	143,258	61,454	Sweden and Norway	22,030	9,680
England	250,517	109,178	Total	4,396,994	1,876,836
Gibraltar	286,244	123,690			

† This letter and the letter following, from the Nantes Chamber of Commerce, were translated by Mr. Charles M. Caughy, of the Bureau of Statistics, Department of State.

submit the observations contained in these documents to the general council, and invite them to examine the case, and see if there are no means of carrying out the wishes of the chamber of commerce of Nantes.

For the under-secretary of state, and by order chief of second division,

J. HAUSSMAN.

CHAMBER OF COMMERCE,
Nantes, May 31, 1889.

His Excellency the Minister.

SIR: I have the honor to address to you a copy of a letter which was written to us by the manufacturers of salted provisions and lards in our district. The signers of this letter have at different times requested us to transmit to the departement de la marine et des colonies well-founded observations on the condition in which their industry is placed in consequence of the custom-house regulations of the French colonies; now they rest their complaints upon new grounds.

The American lards gradually have supplanted, in colonial consumption, those which were formerly furnished by the mother country until at present our exports of lards to Martinique and Guadeloupe are virtually nothing. Now, this fact can not be explained solely by a difference in price existing between American and French lards; it is principally due, it appears, to the fact that our colonies receive, under the name of lard, adulterated and unwholesome products which bear about the same relation to genuine lard as margarine does to butter.

Perhaps it would be difficult for our colonial authorities, considering the special corps of officials required by chemical inspections, to have all American lards examined before they are placed on the market; perhaps, also, the Government would hesitate to order absolute prohibition of the importation of these products into the French colonies. But there is another means of guarding against these frauds, and that is to impose on American lards presented for admission an import tax which would have the effect of allowing our people to meet the competition which is given them by products of greatly inferior quality, and which are entitled to the preference that they enjoy only through fraudulent methods of manufacturing. As our consignees state, these frauds explain the difference in the prices between their lards and the foreign product, and the consumer is always inclined to seek an apparently cheap market, without caring as much as he should about the real value of the article.

For merchandise other than alimentary products the reduction of the customs duty would seem to be justified by the inferiority of the material bonded; but we think, your excellency, when the preservation of the public health is at stake this rule should be reversed, and that, in default of prohibition, a greatly increased tax should warn the consumer and arouse his just suspicions.

Accept, etc.,

RIVRON,
President of the Chamber of Commerce.

NANTES, *May 21, 1889.*

Mr. President, members of the Chamber of Commerce,

GENTLEMEN: We have just called your attention to a fraud which is committed on a large scale, and entails a considerable loss to our agriculture.

In fact, almost the entire quantity of American lards which are imported into France and our colonies contains an average of 50 per cent. of cotton-seed oil. To be convinced of this fraud it is only necessary to refer to the lawsuit which took place recently in England. (See Union Bretonne, 9th August, 1888, Esperance du Peuple, 27th August, 1888.)

It is evidently impossible for the French manufacturers to meet such dishonest competition, so, while the average price of lard is about 145 francs per 100 kilograms, the selling price of this fraudulent lard can be fixed thus:

	Francs.
50 kilograms pure American lard, at 120 francs per 100 kilograms	60
50 kilograms cotton-seed oil, at 80 francs per 100 kilograms	40
	100

That is to say, a difference of 45 francs per 100 kilograms.

Viewed from the point of commercial morality, one can not but be astonished to see the Government tolerate such a fraud in lard, since, *per contra*, there exists a law of recent date which condemns the adulteration of butter and compels the dealers to stamp upon every package, the contents of which are adulterated, the label "Graisse alimentaire."

Thanks to these proceedings, the market of our colonies is entirely supplied by American lards, and that of France also to a great degree. At different times we have furnished you numerous documents incontrovertibly substantiating these facts; we content ourselves now with calling your attention to the following figures. There was exported from France—

To—	1883.	1888.
	Francs.	*Francs.*
Martinique	141,000	....
Guadeloupe	384,000	....
Reunion	974,000	130,000

Without speaking of the loss of freight to our merchant marine, see the consequences which must likewise result to our agriculture.

In view of this condition of affairs the manufacturers of salted provisions and lards will only buy those hogs which will yield the smallest quantity of lard, that is to say, those weighing from 60 to 80 kilograms, and reject those weighing more than from 85 to 120 kilograms. This will evidently result in a decrease in the meat product, for premiums won at fairs can not destroy the effect of restrictions imposed by commerce.

The remedy for this sad condition of affairs would be to tax American lards 30 francs per 100 kilograms; in a word, to protect our native production as other countries do theirs.

All commercial correspondence shows beyond contradiction that the enormous outlay which we make for our colonies only serves to make a market for foreign products.

By referring elsewhere to the duties which are levied on French products on their entry into America, it would be seen that 30 francs is a moderate figure.

MELLINET, DESBOIS & CO.,
Boguien Bardon, etc.

[Extracts from newspapers.]

We find in the Liverpool Evening Express, of June 30, 1888, the synopsis of a trial which we deem it advisable to publish.

It treats of the frauds which are perpetrated in American lards. It particularly concerns a branch of trade most important in our city, as well as many grocers, and, above all, the consumers themselves, and consequently the public health. Why, then, should we refrain from calling our readers' attention to this grave question? Below is a résumé of the trial:

FRAUDS IN LARDS—IMPORTANT PROSECUTIONS.

Several wholesale dealers and importers of Liverpool have been summoned before the court of that city for selling American lards which did not conform to the requirements of the law, either in character, substance, or quality.

Mr. Marcks, as a member of the health committee, conducted the prosecution. He said that on May 14 Inspector Baker, whose duty it is to supervise the sale of all food products, visited the establishment of the defendants. He secured a sample and submitted it for analysis to Dr. Campbell Brown, who gave a certificate to the effect that the lard he analyzed (bearing the brands of Armour & Co. and Fairbanks Brothers, of Chicago) contained considerably more than 40 per cent. of a mixture of cotton-seed oil, stearine, and mutton or beef suet.

Dr. Brown, being called, said that he believed that the lard he analyzed contained even more than 50 per cent. of the mixture. He added that the production of cotton-seed oil in the United States amounts annually to between 180,000,000 and 200,000,000 pounds, and that one-half of it is used to adulterate the product which is sold under the name of "refined lard."

Dr. Brown still further added that, while genuine lard is worth 42*s.* 6*d.* per 100 pounds, cotton-seed oil is only worth 22*s.* 6*d.* and beef suet 30 shillings. The fraudulent manufacturers reap an enormous profit, which is a grievous blow to the honest manufacturers who sell the genuine article, and at the same time the consumers are buying a commodity which is fraudulent, defective, and improper. The defendants were convicted.

The reading of this trial reminds us that La Soleil, of July 7, mentions a case where one hundred soldiers of the One Hundredth regiment, at Perpignan, were poisoned, it is said, by the use of American grease in preparing cod-fish.

THE ISLAND OF JAMAICA.

REPORT BY CONSUL ALLEN, OF KINGSTON.

GEOGRAPHICAL POSITION.

The island of Jamaica is situated between 17° 43′ and 18° 32′ north latitude, and 76° 11′ and 78° 20′ 50″ west longitude, about 5,009 miles to the southwest of England, 100 miles west of San Domingo, and 90 miles south of Cuba, 445 miles north of Carthagena, and 540 miles from Colon.

Jamaica is bounded on the north and east by that part of the Caribbean Sea which separates the islands of Cuba and San Domingo from Jamaica, and which, at its northeastern part, is called the "windward passage," the waters of which mingle with those of the Atlantic Ocean. On the south and west Jamaica is washed by the Caribbean Sea.

The islands of Grand and Little Cayman, with Cayman Brae, are situated — the former about 156 miles and the two latter about 110 miles — northwest of Negril Point.

The Pedro Bank and Cays commence about 40 miles south of Portland Point and extend westerly for 100 miles. This bank is about three-fourths of the size of Jamaica.

The nearest part of the continent of America to Jamaica is Cape Gracias á Dios, in the Mosquito territory, which is 310 miles southwest of the west end of Jamaica.

From its central situation as regards the other West Indian islands, and the fact of its being in the direct track between Europe, the United States, and the Isthmus of Panama, Jamaica can not but furnish advantages and conveniences for trade and commerce between these points which are not to be found elsewhere, and, when the Panama Canal is an accomplished fact, Jamaica will undoubtedly be a necessary branch of that enormous undertaking, and must largely benefit by the increased traffic that will pass in this direction.

The above remark concerning the Panama Canal will, I think, apply with equal force to the Nicaraguan Canal when constructed.

The extreme length of Jamaica is 144 miles, its greatest width is 49 miles, and its least width — from Kingston to Annotto Bay — is 21½ miles.

The island is divided into three counties and fourteen parishes, namely:

Counties.	Parishes.	Square miles.
Surrey	Kingston	7⅓
	St. Andrew	169½
	St. Thomas	280
	Portland	310⅔
	Total	767½
Middlesex	St. Catherine	450
	St. Mary's	229
	Clarendon	467
	Manchester	310
	St. Ann	464
	Total	1,920
Cornwall	St. Elizabeth	471
	Trelawny	332¼
	St. James	227¾
	Hanover	166
	Westmoreland	308½
	Total	1,505½
	Grand total	4,193

Of the above only about 646 square miles are flat, consisting of alluvium, marl, and swamps.

TOWNS.

The following comprises the important towns of the island:

Sea-ports.— Kingston, Morant Bay, Port Morant, Manchioneal, Port Antonio, Hope Bay, Buff Bay, Annatto Bay, Port Maria, Ora Cabessa, Salt Gut, Rio Novo, Ocho-Rios, St. Ann's Bay, Dry Harbor, Rio Bueno, Falmouth, Montego Bay, Lucea, Green Island, Sav-la-Mar, Bluefields, Black River, Alligator Pond, Milk River, Carlisle Bay, Salt River, Old Harbor, Port Royal.

Inland.—Bath, Moneageve, Brown's Town, Stewart Town, Santa Cruz, Alley, Spanish Town, Linshead, Ewarton.

MOUNTAINS.

The highest summits in Jamaica are:

Names.	Elevation in feet.
Blue Mountain (western peak)	7,360
Sir John's Peak	6,100
Portland Gap	5,549
Catharine's Peak	5,036
Belle Vue	5,017
Morces Gap	4,945
Cold Spring Gap	4,523
Hardware Gap	4,079
Fox's Gap	3,967
Newcastle Hospital	3,800
Flamshead	3,663
Silver Hill Gap	3,513
Content Gap	3,251
Bull Head	2,885
Amtully Gap	2,754
Cuna Cuna Pass	2,698
Mount Diablo	2,300
Mandeville	2,131
Guy's Hill	2,100
John Crow Range	2,100
Hagley Gap	1,959
Dolphin Head	1,816
Mount Diablo	1,800
Accompong Town	1,409
Stoney Hill	1,360

ANNUAL TAXATION.

Schedule of annual taxation.

Description.	Amount.
Quitrent.	
Upon every acre of land patented as such	$0.02
Property tax.	
Upon every acre or fraction of an acre of land in cane, coffee, ginger, arrowroot, corn, ground-nuts, cotton, tobacco, cocoa, vegetables, or ground provisions	.06
Upon every acre in guinea-grass	.03
Upon every acre in common pasture, or in pimento, or in common pasture and pimento	.01⅛
Upon every acre in ruinate or wood	.00⅛
General internal taxes.	
Every head of horse-kind used on roads	2.75
Each head of horse-kind used solely for hire and for livery-stable purposes	1.75
Each ass	.86
Each wheel of a carriage	3.75
For each wheel of a carriage solely for hire and livery-stable purposes	2.50
Each wheel of a cart	1.50
Each wheel of a hackney carriage	5.00
Each fire-arm to be used on the premises of the owner	.50
Each fire-arm to be used otherwise	2.00
Horse-kind, asses, and horned stock of and above one year, not used on any road, each	.25
Kingston streets tax.	
Each house in Kingston of the annual value of $30 and upwards	*.03⅜
Each house below $30	.75
Each head of horse-kind used in the city	.87
Kingston streets tax—Continued.	
Each head of horse-kind used solely for livery-stable purposes	$.62
Each wheel of a carriage used in the city	1.25
Each wheel of a carriage used solely for livery-stable purposes	.87
Each wheel of a cart used in the city	.75
Each wheel of a hackney carriage used in the city	1.66
Unoccupied lands	2.50
Fire rate of Kingston.	
On the annual value of each property	*.01⅛
Other parishes where imposed	*.01⅛
Kingston gas rate.	
Fixed by the city council, subject to the approval of the governor in privy council. The rate for the year from August 1, 1888, to July 31, 1889, is	*.02⅛
Sanitary rate.	
[The rate is fixed according to the sanitary requirements of each parish.]	
General purposes rate.	
[The rate is fixed according to the requirements of each parish.]	
Rum duties.	
On all rum and other spirits distilled in the island and sold for consumption, per gallon	1.25
Poor rate.	
On every house of the annual value of $30 or upwards a tax or duty after the rate of, on such value	*.07½

* In the dollar.

Schedule of annual taxation—Continued.

Description.	Amount.
Poor rate—Continued.	
On every house under the annual value of $30 (not dwellings of indentured immigrants or other laborers located on any estate or penn), a tax or duty thereon as follows, that is to say—	
Class 1.—On every house thatched or shingled, or otherwise roofed, but without flooring, and without land to any extent less than 1 acre, a tax or duty of	$0.50
Class 2.—On every house thatched or shingled, or otherwise roofed, with flooring and without land, or with land to an extent less than 1 acre, a tax or duty of	1.00
Class 3.—On every house thatched or shingled, or otherwise roofed, and whether with or without flooring, if the owner or occupier possesses land, whether in the same parish or in any other parish, either attached to or detached from such house, equal in extent to 1 acre or more	1.50
[Or such rate as may in each case be fixed by the revenue commissioners on the recommendations of the several parochial boards.]	
Dog tax.	
On each dog in the city of Kingston and in the towns of Spanish Town, Linstead, St. Ann's Bay, Falmouth, Montego Bay, Lucea, Sav-la-Mar, Black River, Mandeville, Chapelton, Port Maria, Annatto Bay, Port Antonio, Morant Bay, and Port Royal	1.00
Licenses—hawkers and peddlers.	
For each personal license	10.00
For each transferrable license	12.50
License to deal in the purchase and sale, or barter and exchange metals	25.00
Licenses—hawkers and peddlers—C't'd.	
License for sale of gunpowder and fire-arms	$27.50
License to sell spirits by wholesale in Kingston	50.00
License to sell spirits in every other parish.	25.00
License to retail spirits in Kingston, exclusive of Port Royal	125.00
License to retail spirits in the towns of Spanish Town, St. Ann's Bay, Linstead, Falmouth, Montego Bay, Lucea, Sav-la-Mar, Black River, Mandeville, Chapelton, Port Maria, Annatto Bay, Port Antonio, Morant Bay, Port Royal, Brown's Town, Bath, Porus, Buff Bay, Hope Bay, Stewart Town, Duncans, Ocho-Rios, Dry Harbor, Half-Way-Tree, Gordon Town, and Old Harbor Market, each	100.00
License to retail spirits in all other parts of the island	50.00
For every tavern license in Kingston	100.00
For every tavern license in the several other parishes	50.00
For every hotel license in Kingston	50.00
For every hotel license in other parishes	25.00
For each still, per annum	25.00
Trade license.	
Merchants	60.00
Store-keepers	37.50
Auctioneers in Kingston	37.50
Auctioneers in other parishes	12.50
Retail store-keepers:	
Class 1	25.00
Class 2	12.50
Class 3—	
In Kingston	5.00
Elsewhere	2.50
Wharfinger	12.50
Master of vessels or supercargoes	25.00
Proprietors of newspapers	7.50

CLIMATE AND SOIL.

The surface of the island is extremely mountainous and attains considerable altitudes, particularly in the eastern part, where the central range is known as the Blue Mountains. A great diversity of climate is, therefore, obtainable; from a tropical temperature—80° to 86°—at the sea-coast the thermometer falls to 45° and 50° on the top of the highest mountains, and with a dryness of atmosphere that renders the climate of the mountains of Jamaica particularly delightful and suitable to the most delicate constitutions. The sea-breezes which blow in during the day usually cease at an early hour in the evening, and soon thereafter the north breezes, or land wind, commence. The influence of this land-breeze is felt early in the evening by the decrease of temperature, the nights on the plains and sea-board being sufficiently cool to sleep with comfort, while in the foot-hills and mountain ranges the blanket is usually used. The sea-breezes by day and the land-breezes by night are essentially nature's generous provision for combating those climatic influences which, to a greater or less degree, are always found in tropical countries. A rise or fall of 4° in the thermometer marks a positive change in the physical condition, while in a more northern latitude a change of 15° would be required to bring about the same result.

There are many mineral springs in Jamaica, most of them possessing valuable qualities for the cure of various diseases of the body. Two of these are particularly famed, namely, the hot sulphurous spring at Bath and the warm salt spring at Milk River. The temperature of the water of the former is 127° F., while that of the latter is 92° F. The waters of this bath are of a saline, purgative nature, and many cures of gout, rheumatism, and allied diseases are recorded. It is to be regretted that the accommodation for the guests at both baths are meager and unsatisfactory. The Government, it is true, maintains at both springs places of accommodation, but they are not of such a character as the just celebrity of these waters would warrant.

AGRICULTURE.

The statistics of agriculture for the financial year 1887–'88 present an increase in general cultivation, although there is a continued decrease in the area of land under cane cultivation. The governor of Jamaica, in a recent report, makes the following statement: "While it is to be regretted that year by year the area of land under cultivation (cane) has decreased, still, it is some satisfaction to observe that the exports of sugar and rum have not decreased in the same proportion, thus indicating an improved system of cultivation and manufacture." The fruit industry of the island, more particularly that of bananas, is a most important one, the exportation of bananas alone to the United States for the year 1887–'88 being 1,250,459 bunches, or 68 per cent. in excess of the best year of the quinquennium. The cultivation of this fruit is particularly advantageous to Jamaica, by reason of the fact that a large peasant proprietary is engaged in its cultivation, the fruit commanding always ready sale for cash, thus putting in the hands of the peasant proprietor a large amount of available means. The orange yield of Jamaica is prolific, the soil being fertile and no cultivation used in its production, all oranges being grown from the seedlings. The question of the superiority of the Jamaica over the orange of Florida is one, I think, for the consumer to determine for himself. It is true that the fruit is produced at a much cheaper rate in Jamaica than in Florida, and in this regard the Jamaica cultivator has the decided advantage over the Florida cultivator; while, on the other hand, the careless manner here in which oranges are selected for exportation and the bad condition in which they necessarily reach their destination in the United States has materially injured the reputation of the Jamaica orange in the markets of America, and thus the advantage gained by cheapness of production in Jamaica is offset by carelessness.

Acreage under cultivation.

Parish.	Canes.	Coffee.	Ginger.	Arrow-root.	Corn.	Tobacco.	Cocoa.	Vegetables.
Kingston	....	....	....	....	....	....	....	1
St. Andrew	726	3,602	....	....	97	97	1	1
St. Thomas	3,015	2,129	18	....	13	....	110	7
Portland	291	343	....	1	11	1	234	....
St. Mary	1,465	472	....	....	6	....	395	10
St. Ann	1,742	1,994	43	1	84	4	8	4
Trelawny	5,889	111	45	....	....	....	3	....
St. James	3,630	198	33	....	....	3	7	....
Hanover	2,336	12	1	....	1	....	....	....
Westmoreland	5,658	121	2	2	3	....	....	1
St. Elizabeth	500	1,317	15	2	438	4	....	1
Manchester	75	6,751	54	....	44	22	....	1
Clarendon	5,419	1,386	6	2	63	4	4	2
St. Catherine	3,150	1,639	1	2	62	32	173	23
Total	33,616	20,075	218	10	822	167	935	51

Parish.	Ground provisions.	Guinea-grass.	Common pasture.	Common pasture and pimento.	Pimento.	Total acres under cultivation.
Kingston	....	82	117	....	....	260
St. Andrew	6,740	2,562	12,686	20	12	26,524
St. Thomas	4,982	1,660	15,773	....	....	27,707
Portland	5,178	493	13,879	1,698	50	22,179
St. Mary	7,106	4,812	32,643	426	....	47,335
St. Ann	5,880	25,336	26,930	35,412	1,337	98,775
Trelawny	2,954	17,067	23,577	3,686	2	35,034
St. James	3,336	7,649	18,063	1,139	3	34,061
Hanover	3,934	7,150	25,721	1	....	39,186
Westmoreland	4,578	9,484	41,082	....	....	60,931
St. Elizabeth	6,612	18,632	27,338	887	8	55,754
Manchester	7,492	9,211	23,789	970	....	48,409
Clarendon	9,250	6,405	22,990	299	....	45,830
St. Catherine	11,240	11,654	28,389	1	43	56,409
Total	79,282	122,197	313,137	44,539	1,455	616,594

The foregoing statement shows the acreage under cultivation during the year ending September 30, 1888.

IMPORTS AND EXPORTS.

From all available statistical sources I have gathered such information as would, in my judgment, be of interest to the United States, and we find that in the matter of importations that the United Kindom had exported to Jamaica during the fiscal year ending September 30, 1887, 22 per cent. greater than exportations from the United States, while the exportations from Jamaica for the same period gives the United States 6 per cent. more than the United Kingdom. And, for the fiscal year ending September 30, 1888, we find the exports to the United States 3 per cent. more than that to the United Kingdom, whilst the imports for same period show 35 per cent. in favor of the United Kingdom.

The subjoined table indicates the countries to which island produce was exported and from which exportations to Jamaica were made, with percentage of each:

Country.	Exports.		Imports.	
	1886-'87.	1887-'88.	1886-'87.	1887-'88.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
United Kingdom	38.6	40.2	55.5	62.8
United States	43.9	43.2	33.1	27.7
Canada	1.3	1.6	8.2	6.6
Other countries	16.2	15	3.2	2.9

FRUIT TRADE.

The total value of all fruits exported from the island for the year 1888 was $1,791,673.56, and the following table gives the value of each article exported during the same period:

Coacoa-nuts	$103,412.68
Bananas	1,353,359.43
Oranges	323,393.68
Miscellaneous	11,507.77
Total	1,791,673.56

Probably about 90 per cent. of this amount is exported to the United States.

The fruit-growing industry of Jamaica is steadily increasing, and a large sum of American money directed by American energy is engaged in its cultivation. Five private companies are engaged in this trade alone, and have employed in the service twelve steam-ships. In addition to the above, the two steam-ship companies plying between New York and Jamaica carry on each steamer to the United States from five to ten thousand bunches of bananas. It may be of interest to make an approximate estmate of the profits arising from this trade.

A bunch of bananas, which commands readily in the market of America $1.50, costs, delivered to the tackles of the steamer here from 37½ to 75 cents per bunch—the price paid depending upon the competition that may exist at the time and place of purchase; cost of transportation not to exceed 10 cents per bunch. Thus we have a handsome profit on the outlay.

LABOR AND WAGES.

The working hours in the neighborhood of Kingston are from 6 a. m. to 5 p. m., with one hour for breakfast between 11 and 12 o'clock; on Saturdays from 6 to 11 a. m. In the country the hours vary considerably, but as a rule they are from 7 a. m. to 4 p. m., with one hour for breakfast, and the people seldom turn out to work on Saturdays.

The average rate of wages paid about Kingston under ordinary circumstances is given below:

Occupation.	Amount.	Occupation.	Amount.
Fitters (scarce, but not in much demand) per day	$1.25 to 1.50	Fencing:	
Masons and bricklayers do	.75	Stake and rail per chain	$1.25
Carpenters and joiners do	.75	Wire do	1.00
Painters do	.75	Penguin do	1.00
Blacksmiths do	1.00	Clearing commons and grass pieces per acre	1.00
Laborers do	.50	Excavating and throwing out earth per cubic yard	.18
Women do	.25	Excavating and throwing out earth and removing to a distance not exceeding 80 yards per cubic yard	.36
Hire of mule and cart (or dray) do	1.25	Excavating rocks, including blasting material per cubic yard	1.00
Hire of two mules and cart do	1.75	Drilling and blasting rock per linear foot	.08
Ordinary brick-work per cubic yard	2.00	Breaking road metal per cubic yard	.36
Rubble walling in mortar do	1.75	Making and burning bricks, including cost of wood per 1,000	$5.62 to 7.50
Dry-stone walling do	.31	Shoeing horses and mules, per month, including shoes and nails	.62
Shingling per square of 100 feet	.87		
Painting per coat per square yard	.03		
Whitewashing walls per coat do	.01		
Cutting cord-wood per cord	.50		
Cutting grass, per 100 bundles (28 pounds each)	.75		
Digging stumps per 100	.75		
Clearing ruinate land per acre	2.50 to 5.00		

Day-labor rates are lower in the country districts, but, after making allowance for shorter hours, the rates remain practically the same for town and country.

In some parts artisans are very scarce, and are getting scarcer every year, and inferior men have to be employed at town prices. In some districts there is a great scarcity of labor for sugar estates and for banana cultivation.

Wages have an upward tendency, especially in the fruit-growing parishes. The foregoing prices are only approximate, and do not refer to work on estates where the prices paid are somewhat lower.

Much of the labor in Jamaica is performed by coolies or what is generally known as indentured immigrants; this system was first introduced in the island in the year 1845, and, briefly stated, is as follows:

The coolies are brought under Government auspices from India, and are allotted to planters as their services may be required. The usual period of indenture is five years, during which time the immigrant is entitled to receive about $6.50 per month, from which the immigrant pays for his own food and clothing, lodging and medical aid being furnished gratuitously. After the expiration of his term he is at liberty to renew his contract with his old employer or seek employment elsewhere. Ten years' residence in the island entitles the immigrant to become a colonist. He then receives an allotment of land for his own use.

Much has been written and said concerning the slothfulness of the Jamaica wage worker, and, while it is true that he performs less actual labor in a given time, it is equally as true that he is debilitated by reason of tropical influences, and is thus unable to perform the amount of manual labor which we expect and receive from similar labor in a more northern latitude.

The women are by far more industrious than the men, and in physical strength are their equal. We find them actively engaged in every department of industry, and, owing to the custom of carrying heavy loads upon their heads for long distances, are splendid specimens of physical development. As domestic servants they are much preferred to the male, occupying such places as are usually filled in America by male servants.

IMPORT DUTIES.

The import duties collected on the principal articles of import are as follows, the articles mentioned are those imported principally from the United States:

Articles.	Amount.
Ale, beer, and porter ... per gallon	$0.12
Bacon ... per pound	.04
Barley (not pearl barley) ... per bushel	.08
Beef:	
Wet, salted, or cured .. per bbl., 200 lbs.	3.75
Dry, salted, or cured ... per pound	.02
Beans ... per bushel	.08
Bread or biscuits ... per 100 pounds	1.50
Butter ... per pound	.04
Calarances ... per bushel	.08
Candles:	
Composition ... per pound	.04
Tallow ... do	.01½
Wax or spermacetti ... do	.04
Cheese ... do	.04
Corn ... per bushel	.08
Fish (dried or salted) ... per 100 pounds	.87
Flour:	
Rye ... per barrel of 196 pounds	2.00
Wheat ... do	2.00
Hams ... per pound	.04
Lard ... do	.01½
Matches, lucifer and others, per gross of 12 dozen boxes, each box to contain 100 sticks, and boxes containing any greater or lesser quantity to be charged in proportion	1.25
Meat, salted or cured ... per 200 pounds	3.75
Meal (not wheat meal) ... per 196 pounds	.50
Oats ... per bushel	.08
Oil ... per gallon	.18
Peas (not split peas) ... per bushel	$0.08
Pork, salted or cured ... per 200 pounds	3.75
Sausages, dry or pickled ... per pound	.04
Soap ... per 100 pounds	1.37
Tobacco:	
Manufactured, including Cavendish, ... per pound	.25
Unmanufactured ... do	.12
Cigars ... do	1.25
Tongues:	
Dried ... do	.04
Salted or cured ... per 200 pounds	3.75
Wheat ... per bushel	.18
Wood:	
For every 1,000 feet of pitch-pine lumber, by superficial measurement of 1 inch thick	3.25
For every 1,000 feet of white pine lumber, or other lumber, by superficial measurement, of 1 inch thick	2.25
Shingles—	
Cyprus, more than 12 inches in length ... per M	1.50
Wallaba shingles ... do	1.50
Boston chips, and all shingles not otherwise enumerated .. per M	1.00
On all goods, wares, merchandise, and effects of every description not previously enumerated, for every $500 value	62.50

And after these rates for any greater or less quantity of such goods, respectively.

EXPORT DUTIES.

The four principal articles of export are sugar, rum, coffee, and dye-woods, and the export duty of these articles for the year 1888 was—

Sugar	$19,629.22
Rum	11,154.22
Coffee	21,209.29
Dye-woods	25,858.37
Total	77,851.10

The total customs revenue for the year ending September 30, 1888—

Collections on imports	$1,474,379.70
Collections on exports	77,851.10
Total	1,552,230.80

The export duties collected on the principal articles of export are as follows:

Coffee	on every 7 cwts...	$1.50
Rum	on every 90 gallons...	.62
Sugar	on every 17 cwts...	.75
Dye-woods	on every ton...	.25

AMERICAN PRODUCTS IN JAMAICA.

The outlook for increase of importations from the United States is good, and the attention of our manufacturing exporters can not be too frequently called to the necessity of careful preparation of goods intended for exportation.

This matter is one of very general complaint, and needs rectification. There is in Kingston one wholesale American shoe house, the proprietor of which informs me that he is meeting with good success, and that the American shoes are beginning to be appreciated. This is the only establishment essentially American in the city.

SOCIAL STATISTICS—POPULATION, EDUCATION, RELIGION, ETC.

Population.—The population of the island at the last census, taken in 1881, was 580,804; to this add the natural increase, with a small percentage for immigration, and we have an estimated population of 617,000 at present. The three divisions are as follows: Whites, 16,418; colored, 113,396; blacks, 487,186; giving a total of 617,000.

I must here explain the significance which attaches to the word "colored," or rather as the term is here applied. Every shade or color between the Caucasian pure and simple and the black man absolute is embraced within this term. This class of citizens is not only a large element of Jamaican society, but, as a rule, are fairly educated, familiar with the usages of society, and occupy prominent positions in all the walks of life. In Jamaica all men are alike eligible under the laws to political and civic employment. The independence of the Jamaican laborer is very forcibly shown by the following facts: There are 46,074 peasant proprietors; allowing five members to every family, we have a grand total of 230,370. This class, therefore, is exempt from the necessity of accepting employment, and only do so at such time as they may require ready cash.

Education.—The island is well supplied with educational institutions. At the close of the fiscal year ended September 30, 1888, there were 756 Government schools, classed as follows: First class, 100; second class, 280; third class, 362; F class, 8; E class, 6; total, 756. Total number of pupils on books, 71,643; average number of pupils in attendance, 41,920. In addition to the above there are a number of schools founded by endowment and church organizations, all of which appear to be well conducted. Education is not compulsory, and hence in certain portions of the island the attendance is comparatively small. The desire of the laboring classes seems to be to have their children educated sufficiently well to read and write, thus affording them opportunity for more lucrative employment.

Religion.—A question as to what extent the character of the Jamaican negro is developed under Christian influences is one upon which I find many differing opinions. That the religion has upon him a strong restraining influence I believe to be unquestioned, but, unhappily for the elevation of this people, the negro seemingly regards himself at liberty to indulge his passions without restraint, and admits the right to no one to question his chastity. To this peculiar method of reasoning is largely due the illegitimacy of the island.

Every parish is well supplied with churches, and the ministry, as a class, are active and zealous in the discharge of their responsibilities. It has been my pleasure recently to have conversed with several recognized leading divines of the island on the character of their work and the success which has attended their efforts. I find a hopeful view taken, these gentlemen each assuring me that immorality is on the decrease.

The last official returns on this subject show that a fraction over 60 per cent. of the births are illegitimate. There is a fact in connection with the unwillingness of the laborer to marry, which, while it may appear ridiculous in the extreme to the outside world, has unquestionably a most potent influence in preventing marriage, viz, these persons seemingly believe that unless a marriage breakfast is given immediately after the ceremony their marriage is incomplete, and prefer to live together without any marital ceremony rather than forego the breakfast. The cost of this breakfast ranges from $15 to $75, and when we remember the remuneration received by the wage worker, it is readily understood how difficult becomes the task of saving this large amount. This system of living together, while it is indefensible from any stand-point, has a partial condoning feature; it is a consistent concubinage, these people rarely ever separating, but living on to the end as man and wife.

Of the church organizations which come nearest to this class of people the Moravian accomplishes the most good. Their missions are in the mountainous districts, and their ministers devote much time and the expenditure of considerable money to the improvement of the social condition of the poorer classes found within their districts.

Social habits—I have found the people of the island as a rule hospitable and polite. A stranger, if properly accredited, is always welcomed to the residences (*penns*) throughout the island. In the matter of dissipation a striking feature presents itself in Jamaica. The whites are the drinkers of the island, while the colored and black elements of society are sober. One of the reasons which presents itself to my mind is the absence of places of amusement or entertainment, and the first-mentioned class seeks respite from ennui in their grog, while the other two mentioned classes are apparently able to find within themselves resources for passing the time.

TRADE FEATURES.

Trade habits.—One feature of store-keeping, and one against which all strangers should be cautioned, is the universal habit of charging from 25 to 100 per cent. in excess of what the dealer expects to receive, and the stranger would do well to request the attendance of some friend when engaged in making purchases. There are a few exceptions to this rule, but they are isolated in the extreme.

Hotels.—The hotel accommodations for travelers are limited; probably one hundred tourists would fill all the recognized hotels in the city. The cost of living at hotels varies from $45 to $60 per month, and, while the food and appurtenances are all tropical, they are still comfortable and acceptable.

Highways.—The common roads of the island are a credit to the people; they are well kept, being macadamized with marl, and extend throughout the length and breadth of the island.

W. G. ALLEN,
Consul.

UNITED STATES CONSULATE,
Kingston, September 3, 1889.

SUGAR INDUSTRY OF TRINIDAD.

[Printed statement transmitted by Consul Sawyer.]

Return showing the number and names of sugar estates in the colony, to whom belonging, and the quantity and description of sugar made on each estate for the year ending June 30, 1889.

County of Caroni:	Hogsheads.
Adela—J. E. Coryat, common process	251
Bonne Aventure—C. Tennant, Sons & Co., London, centrifugal 395, common process 192	587
Brechin Castle—Gregor Turnbull & Co., Glasgow, vacuum-pan	2,531
Camden—John Cumming, common process	1,015
Caroni Usine, comprising Frederick, McLeod Plain, Washington, St. Marie, and Curèpe—Gregor Turnbull & Co., Glasgow, vacuum-pan	3,202
Concord—C. Tennant, Sons & Co., London, centrifugal 255, common process 150	405
Edinburgh—N. W. Brunton, common process	292
Endeavour—R. de Verteuil, common process	575
Esperanza and Providence—W. F. Burnley & Co., limited, Glasgow, centrifugal 1,781, common process 124	1,905
Exchange—John Cumming, centrifugal	1,275
Leonice—H. Cornilliac, common process	172
Milton—C. Tennant, Sons & Co., London, common process	318
Mon Plaisir—Heirs of F. Zurcher; in chancery, W. Howatson, receiver, common process	738
Mon Jaloux—Kelly, heirs of Anne, common process	236

Return showing the number and names of sugar estates in the colony, to whom belonging, and the quantity and description made on each estate, etc.—Continued.

County of Caroni—Continued.	Hogsheads.
Mount Pleasant, Forrest Park, Cedar Hill, and Diamond—G. T. Fenwick, common process	1,218
Perseverance—	
Audley C. Miles, Bristol, vacuum-pan	857
John Cumming, common process	726
Petersfield—Colonial Company, limited, London, common process	850
Phœnix Park—W. F. Burnley & Co., limited, Glasgow, centrifugal	895
Plaisance—C. Tennant, Sons & Co., London, centrifugal 401, common process 74	475
Rivulet—Gregor Turnbull & Co., Glasgow, centrifugal	341
Saint Clair—Heirs of F. Zurcher; in chancery, W. Howatson, receiver, common process	142
Saint Helena—Gregor Turnbull & Co., Glasgow, centrifugal	200
Spring and Caracas—J. Henderson, centrifugal	302
Trafalgar—Ambard & Cadet; in chancery, William Scott Kernahan, receiver, common process	370
Waterloo—John Cumming, vacuum-pan	2,026
Wilderness—J. W. Warren, common process	258
Woodford Lodge—George Fitt and S. Henderson, centrifugal	715
Total	22,877
County of St. George:	
Aranjuez and Barataria—André Blasini, Paris, vacuum-pan	1,735
Champ Elysées—Dr. de Boissieire, common process	10
Dinsley—T. C. Pile, vacuum-pan	442
El Socoro—Colonial Company, limited, London, concrete	960
Garden and Bonair—W. F. Burnley & Co., limited, Glasgow, common process	741
Golden Grove—F. W. Le Blanc, common process	627
La Florissante—F. W. Le Blanc, common process	222
Laurel Hill and Cane Farm—Heirs of F. Zurcher; in chancery, W. Howatson, receiver, common process	372
Macoya and El Dorado—W. F. Burnley & Co., limited, Glasgow, common process	1,133
Orange Grove—W. F. Burnley & Co., limited, Glasgow, vacuum-pan	2,402
Paradise—Creditors of Campbell Hannay, centrifugal	240
River and Cascade—N. W. Brunton, common process	338
St. Augustine Usine, St. Gill, and Streatham Lodge—Creditors of A. Ambard & Son; in chancery, J. Cumming, receiver, vacuum-pan	2,278
St. Clair—W. F. Burnley & Co., limited, Glasgow, common process	591
Valsayn and Caroni—Paul Giuseppi; in chancery, J. Cumming, receiver, common process	1,114
Woodbrook—W. F. Burnley & Co., limited, Glasgow, vacuum-pan	232
Total	13,537
County of St. Patrick:	
Belle Vue—C. Tennant, Sons & Co., London, vacuum-pan 536, common process 45	401
Columbia and Lachmaben—Colonial Company, limited, London, vacuum-pan	210
La Retraite—Gregor Turnbull & Co., Glasgow, common process	251

Return showing the number and names of sugar estates in the colony, to whom belonging, and the quantity and description made on each estate, etc.—Continued.

County of St. Patrick—Continued.	Hogsheads.
L'Envieuse—John Cumming, common process	153
Mon Desir—C. Tennant, Sons & Co., London, centrifugal	437
Perseverance and St. John—Heirs of John K. Welch, London, vacuum-pan	685
Ste. Marie, Beaulieu and Mon Plaisir—Gregor Turnbull & Co., Glasgow, centrifugal	416
Total	2,553
County of Victoria:	
Ben Lomond—C. Tennant, Sons & Co., London, common process	541
Bien Venue and La Fortuné—C. Tennant, Sons & Co., London, vacuum-pan	2,116
Bronte—M. Lennon and heirs of G. Shine, common process	691
Buen Intento and Broomage—C. Tennant, Sons & Co., London, common process	578
Cedar Grove Usine, comprising Palmiste, Canaan, and Plilippine—James Lamont, Glasgow, vacuum-pan	2,090
Concord C.—Colonial Company, limited, London, common process	645
Craignish—G. Liddelow, common process	404
Elswick—J. Palmer, common process	45
Esperance—E. Cipriani, common process	251
Fairfield—Gregor Turnbull & Co., Glasgow, common process	183
Friendship (R)—Mrs. Rowbottom, common process	276
Guaracara—Q. Kelly, common process	46
Harmony Hall—Colonial Company, limited, common process	1,380
Hermitage—C. Tennant, Sons & Co., London, common process	414
Hope—P. McIntosh, common process	100
Hindostan—C. D. McLean, common process	300
Inverness—C. Tennant, Sons & Co., London, centrifugal	1,043
Jordan Hill—M. Lennon and heirs of G. Shine, common process	674
La Resource—Price Bros., London, common process	244
Lothians—Gregor Turnbull & Co., Glasgow, common process	482
Malgretout; Glenroy, and Friendship—C. Tennant, Sons & Co., London, vacuum-pan	1,090
New Grant—C. Tennant, Sons & Co., London, common process	452
La Plaisance—Gregor Turnbull & Co., Glasgow, centrifugal	635
Reform and Fortitude—J. A. McQuaide; in chancery, A. Riddell, receiver, common process	633
Retrench—Heirs of Robert Wilson, Dublin, common process	406
Tarouba—Colonial Company, limited, London, common process 705, concrete 575	1,280
Wellington, Picton, and Dumfries—John Cumming, common process	1,833
Williamsville and Brothers—Colonial Company, limited, London, centrifugal 544, concrete 1,006	1,550
Usine St. Madelaine, comprising Petit Morne, Corinth, Golconda, Cedar Hill, Woodford Dale, Union Hall, Les Efforts, and Plain Palais—Colonial Company, limited, London, vacuum-pan	7,613
Total	27,895
Grand total	66,862

Return showing the number and names of sugar estates in the colony, to whom belonging, and the quantity and description made on each estate, etc.—Continued.

RECAPITULATION.

	Hogsheads.
Vacuum-pan	29,865
Centrifugal	9,775
Common process	24,681
Concrete	2,541
Total	66,862

AN EARTHQUAKE-PROOF CHURCH.

REPORT OF CONSUL WEBB, OF MANILA.

There is now in process of construction in the district of San Sebastian, Manila, Philippine Islands, an earthquake-proof church, a description of which will undoubtedly be of interest to the manufacturers of architectural iron in America who may desire to extend their trade to this part of the world. The numerous Catholic churches and cathedrals of Manila have heretofore been constructed of stone and wood, and have suffered greatly from earthquakes. Therefore, in the building of edifices of this character, the main object has been to secure solidity in the walls rather than attractiveness in external appearance, and hence the churches are much plainer than they would be were the people not in a state of continual apprehension that their places of worship may be shaken down in an instant. How to construct a church that would defy the most vigorous "terremoto" has been a vexing problem, apparently unsolvable, until Señor Don Genero Palacios y Guerra, chief engineer of public works of Manila and planner of the excellent system of water-works with which the city is favored, conceived the idea of making an edifice entirely of wrought and cast iron, securely bolted together, and no more to be shaken apart by a subterranean disturbance than a solid block of stone. The result of his ingenuity is the iron church of San Sebastian, which is now partially finished and is attracting the wonder and admiration of all who see it.

The design is original, with two tall steeples at the front end and a number of shorter spires over each abutment. When finished it will be painted in imitation of stone and will present an external appearance similar to that of many of the beautiful stone cathedrals of Europe and America. Inside the church is 162 feet long by 70 wide; the height to the tops of the arches is 52 feet, and to the spring of the same 34 feet; the nave is a span of 32 feet, and there are two side aisles. There are two towers over the principal facade 19 feet square and 170 feet high from the ground to the top of the mid-vane. Over the transept there is a tower 32 feet square and 114 feet from the ground to the top of the cross which surmounts it. The building is lighted by a double row of Gothic windows, which will be filled with painted panes representing sacred subjects.

The entire frame-work is of wrought-iron bolted together in the firmest manner possible, the fluted columns and buttresses being hollow. The walls are of double plate iron with a space of 30 inches between the plates. The decorative work, which is quite elaborate, is of cast-iron. The total weight of iron in the building is 1,600 tons, or about one-fourth of the weight of material in the Eiffel tower. All the material was made by the Societé Anonyme d'Enterprise des Travaux Public, of Brussels, Belgium, at the following prices: Cast-iron work, $48.25 per ton; ornamental cast-iron, $106.15 per ton; wrought-iron, including plating, $60.80 per ton, delivered f. o. b. at Antwerp. The total cost of the iron work is $280,000, to which may be added the estimated cost of the flooring, masonry, painting, etc., $20,000, and the pulpits and interior decorations, $50,000, making the total cost of the church about $350,000. These prices are given in United States gold; to get Manila currency add 20 per cent.

The church is being built by the Recolleto brotherhood of the Catholic church, one of the strongest religious organizations here, and the work of construction is being supervised by Frederico H. Sawyer, esq., an English architect, who has acquired an extended reputation among the Spanish colonies as a man of unusual mechanical genius and executive ability.

It having been demonstrated that an earthquake-proof church is a possibility, it is very probable that edifices similar to the church of San Sebastian will be built in future, not only in Manila, but in the various cities and towns of the Philippine Archipelago, and there is no apparent reason why the architectural iron manufacturers of the United States should not supply the material for them.

ALEX. R. WEBB,
Consul.

UNITED STATES CONSULATE,
Manila, October 14, 1889.

SUMATRA TOBACCO IN AMSTERDAM.

REPORT BY CONSUL ECKSTEIN.

The owners and importers of leaf tobacco and the merchants and brokers in the article are among the most enterprising, energetic, and pushing business men of this city and country. It is, however, at present not my intention to describe the various ways in which these characteristics manifest themselves, except to make mention of the fact that certain brokers here prepare and publish résumés of the annual transactions in Sumatra tobacco in this and other markets even before the expiration of each year. This remark might be thought paradoxical without the qualifying statement that after the last or closing sale, by sealed bids or inscription, the principal operations of the year are generally regarded as having terminated.

The last sale for 1889 took place on the 14th of this month (November), and already several of such "yearly trade reviews" have been brought under my notice. From one of them I quote the figures which are hereinafter given as representing the crop and sales of Sumatra tobacco, covering 1888-'89 and former years. The total product of 1888 is stated to have amounted to 182,284 bales, from the sales of which about 128 cents (Dutch*) per half-kilogram were realized, footing up about 35,500,000 florins† for the whole crop. The crop of 1887 was put down at 144,577 bales; the price obtained for it averaged about 121 cents, and the whole crop netted but 26,650,000 florins. The imports and sales at Amsterdam amounted to 154,802 bales, at Rotterdam to 13,147 bales, and at Bremen to 14,335 bales of the yield of 1888 sold in 1889 by owners or consignees.

The following statement gives the names of the tobacco-growing districts in Sumatra, the quantity raised in or exported from each, and the average price realized from the sale of the product of each district, viz:

Districts.	Quantities brought into market.	Price realized per half-kilogram.
	Bales.	*Dutch cents.*
Deli	86,683	150
Lankat	43,072	126¼
Serdang	29,585	87¾
Padang	4,712	105½
Bedagei	7,119	90¼
Batoe Barah	4,034	93
Asahan	4,811	128
Pagoeraman	1,665	51
Siak	333	42¾
Palembang	118	24
Total	182,132	*128

*Average price.

The above represents a total value of the crop of 1888 of about 35,500,000 florins.

The next statement shows the product of each crop, the price obtained per half-kilogram in Dutch currency, and about the total value of each crop for twelve years, or from 1877 to 1888, inclusive, viz:

Years.	Quantity.	Prices per half-kilogram.	Total value of crop.
	Bales.	*Dutch cents.*	*Florins.*
1877	35,750	130	7,250,000
1878	48,545	125	9,000,000
1879	57,549	118	10,500,000
1880	64,965	114	12,000,000
1881	82,356	115	14,500,000
1882	102,047	138	21,500,000
1883	93,533	134	19,000,000
1884	125,496	145	27,500,000
1885	124,911	141½	26,750,000
1886	139,512	155	32,500,000
1887	144,400	120	26,000,000
1888	182,282	128	35,500,000

*2½ Dutch cents = 1 American cent.

†1 florin = 40.2 cents.

Prices are quoted in Dutch currency, and are those paid for running lots, containing first, second, third, and fourth sizes, broken leaf, and cuttings.

By the foregoing it is seen that the slight check experienced last year in the (up to then) so extremely profitable outcome of former years' operations has been fully made up for by the parties here and elsewhere who are interested in the cultivation of tobacco in Sumatra, as the crop of 1888 turned out to be so prolific, and as from the sale of it a higher price was realized than was for the crop of 1887.

EXPORTS TO THE UNITED STATES.

American merchants and importers of leaf tobacco continue to take quite as lively an interest in the Sumatra tobacco trade of the Amsterdam market as they ever did. The sales of the article, which this year were more numerous than in former years, commencing in April, being held nearly every month thereafter, and which finally closed in November, were attended by buyers from the United States in increased numbers. The exports from Amsterdam to the United States from January 1 to November 15, inclusive, amount to 38,604 bales, and will, it may safely be stated, exceed 40,000 bales for the full year 1889. The exports for the whole year 1888 amounted to only 25,321 bales.

CROP OF 1889.

While the acreage under cultivation for tobacco in Sumatra still continues to be extended from year to year, the annual yield does not appear to be as regularly increasing. If reports so far received respecting the quantity of the crop of this year can be relied upon, it will turn out that there was slightly less tobacco grown in 1889 than in the previous year (1888).

The quality of the new crop gives promise, as I am credibly informed, of being most likely to prove satisfactory. Excessive rains prevailing during the tobacco-growing season had the effect that a goodly part of the crop will consist of the so desirable light-weight goods. It is said that spotted leaves abound in the new crop, but nothing is said as to much perforated or broken leaves. Upon the point of color of the tobacco, it is altogether too early to ask or receive any trustworthy information.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, November 21, 1889.

Commerce of Guatemala.—Under date of September 19, 1889, Consul-General Hosmer says that, approximately, there are four hundred vessels arriving annually at the ports of Guatemala, flying the flags of the United States, Great Britain, Germany, Spain, France, Italy, Mexico, etc. They bring merchandise from England amounting to nearly $1,700,000; from the United States, $700,000; France, $500,000; Germany, $300,000; and from the remaining nations about $100,000, annually. The importations from the other republics in Central America amount to about $300,000, and those from South America nearly $700,000 in one year. The principal article of exportation is coffee, which increases annually. The value of last year's exportation of coffee was, in round numbers, $10,000,000. Sugar represented, approximately, $400,000; hides, $250,000; bananas, $70,000; rubber, $200,000; deer-skins, $20,000; Indian woolen cloths, $30,000; sarsaparilla, $20,000; cacao, $12,000; indigo (añil), $20,000; cochineal, $10,000; woods, $15,000; and other articles, $100,000, making the approximate sum total of $11,147,000, or increase over importations of $6,897,000.

COMMERCE OF TAKAO AND TAIWANFOO

REPORT BY ACTING CONSULAR AGENT WARREN.

TOTAL TRADE.

The total trade of the port of Taiwanfoo in 1888, including re-exports, and expressed in United States currency, amounted to $3,468,555, as against $3,519,905 in 1887, showing a falling off of $51,350. This decrease is, however, more apparent than real, and is due to the fall in value of silver. The amount of last year's trade in taels was 2,973,046 Haikwan taels, as against 2,815,924 Haikwan taels in 1887, so that, expressed in a silver unit of value, there has been an increase in exports and imports of 157,122 taels.

In this actual increase exports, mainly brown sugar, claim the largest share; of imports, opium has increased in quantity but fallen in relative value; kerosene-oil has nearly doubled in amount, while piece-goods have diminished by about 6,500 pieces. A remarkable advance is observable in the export of lung-ngan pulp, amounting to $45,000. This was due to the failure of the crop at Canton. On the other hand, ground-nut cake, which figured to the extent of 12,906 cwts. in 1887, is absent from the list of exports in 1888. The export of camphor has trebled itself. The fluctuations in other articles have been so slight as to require no special notice.

SHIPPING.

The total number of vessels which entered and cleared is 194 in 1888, as against 211 in 1887; of the former, 123 were sailing vessels amounting to 40,144 tons, and 88 steamers of 65,443 tons; while in 1888 there were only 79 sailing vessels of 31,030 tons, as against 115 steamers of 77,705 tons, showing a total increase of 3,148 tons. The vessels employed in the trade last year were exclusively German and British, in the proportion of 71 of the former to 123 of the latter.

The steady demand which has set in from Japan and the ports of North China for South Formosa sugar accounts for the increasing steam tonnage employed.

BROWN SUGAR.

The year 1888 was marked by an unusually good output of sugar, the export of brown sugar in foreign bottoms amounting to 733,130 cwts., as against 622,551 cwts. in 1887. The total output was estimated at over 770,000 cwts., about 37,000 being exported in junks from Taiwanfoo and the non-treaty ports of Lokkang and Punkang. Of the brown sugar which passed through the foreign customs 52 per cent. was shipped at Takow and 48 per cent. at Taiwanfoo. It may be said that all Takow sugar is exported to Japan, and all Taiwanfoo sugar to the ports of North China. By exception Taiwanfoo sugar to the amount of 48,500 cwts. was last year shipped to Yokohama, the price in April being from 10 to 15 cents per picul lower than that of the Takow article; but it found no market in Japan, and this exception only serves to confirm the rule.

WHITE SUGAR.

The total export of white sugar from Taiwanfoo was over 45,000 cwts., which has been about the average quantity for the past three years, but less than was customary before the Hong-Kong refineries entered into the competition. Refining by the rude native processes can not compare for cheapness and efficiency with foreign methods, and there is likely to be a progressive decrease in the shipments of this article. The greater part of the above 45,000 cwts. was exported to Hong-Kong and re-exported thence to native ports as foreign produce, so as to benefit by transit pass advantages on re-arrival in China.

CAMPHOR.

In camphor the small trade from this port, which is chiefly in the hands of one German firm, has appreciably increased, the value of the export having more than trebled. The Chinese officials have done all in their power to put a stop to the traffic by vexatious interference and unfounded charges against those engaged in it. They attempted at first to prevent all foreign share in the trade by declaring it a Government monopoly, but all the representatives of the treaty powers at Peking have united in refusing to recognize such a pretension. Nevertheless, repeated seizures of camphor in the hands of foreigners' employés have been made on this discredited pretext, and the prosecution of the traffic remains up to the present involved in difficulties, owing to the unwarrantable proceedings of the Formosa authorities.

LAND-TAX INSURRECTION.

The attempts of the governor to raise revenue by increasing the land-tax five-fold resulted in an outbreak of determined opposition and culminated in actual insurrection in the latter part of the summer of 1888. The first rising took place at Pilam, a town on the southeast coast. The Chinese settlers there entered into an alliance with the neighboring savages, and, in spite of the dispatch of some 3,000 troops, appear to have successfully held their own. What the result would have been in the long run it is difficult to estimate, but the anti-land-tax movement having broken out in the district of Changhua, in the very center of the island, the authorities, it is believed, compromised the question at Pilam, so as to have their hands free to cope with the much more formidable state of affairs at Changhua. There was at one time a serious danger that Taiwanfoo might be involved, in which case the lives and property of foreign residents would have run some risk; but in central Formosa also the authorities ended by practically yielding to the popular outcry, and the obnoxious tax was virtually abrogated. Such a social convulsion could not fail to be detrimental to trade, the roads to the central and northern districts being closed for months, the telegraph wires which connect Taiwanfoo with the mainland being cut, and large stocks of goods, especially opium, being left on the merchants' hands for lack of access to the customary markets.

PELHAM WARREN,
British Consul in charge of United States Consular Agency.

UNITED STATES CONSULAR AGENCY,
Taiwanfoo, October 9, 1889.

Statement showing the imports at Takao and Taiwanfoo for the year ending December 31, 1888.

Description.	Quantity.	Value entered.
Foreign goods.		
Opium:		
Malwa, cwts	45.9	$19,220
Benares, do	803.1	241,780
Persian, do	2,511.7	906,815
Turkey, do	5.7	1,635
Shirtings:		
Gray, plain, pieces	19,911	38,820
Plain white, do	10,838	26,860
T-cloths, do	6,548	7,865
Camlets (English), do	3,537	37,855
Kerosene, gallons	150,802	34,245
Lastings (plain), pieces	1,039	8,795
Balzarines (wool and cotton), do	440	5,770
Cement, packages	5,063	17,720
Cinnamon, cwts	106.4	4,780
Cuttle-fish, do	606	9,205
Flour, do	2,441	6,880
Ginseng:		
Corean, do	2.5	3,585
American (clarified), do	38	13,360
Prawns (dried), do	391	6,370
Miscellaneous		113,605
Total foreign goods		1,505,165
Native produce.		
Bags, hemp, grass, and straw, pieces	888,170	28,520
Medicines		23,750
Silk piece goods, cwts	20	7,730
Woolen and cotton mixtures, pieces	6,497	6,565
Grass cloth, cwts	156	12,915
Tobacco (prepared), do	960	14,885
Miscellaneous		72,830
Total native produce		167,195
Grand total		1,672,360

Statement showing the exports from Takao and Taiwanfoo for the year ending December 31, 1888.

Description.	Quantity.	Value, including costs and charges.
Exports.		
Camphor .... cwts...	1,144	$9,565
Camphor-wood .... planks...	4,045	7,085
Hemp .... cwts...	1,802	17,460
Lung-ngan pulp .... do......	11,916	65,140
Sugar:		
Brown .... do......	733,130	1,385,065
White .... do......	45,636	146,390
Turmeric .... do......	23,273	47,550
Miscellaneous	....	53,175
Total exports	....	1,731,430
Re-exports.		
Foreign goods	....	63,915
Native produce	....	850
Total re-exports	....	64,765
Grand total	....	1,796,195

Statement showing the navigation at the ports of Takao and Taiwanfoo for the year ending December 31, 1888.

ENTERED.

Flag.	Steamers.		Sailing vessels.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
United States	....	....	....	....	....	....
Chinese	....	....	....	....	....	....
British	44	29,249	19	7,290	63	36,539
German	15	9,637	21	8,405	36	18,042
Total	59	38,886	40	15,695	99	54,581

CLEARED.

Flag.	Steamers.		Sailing vessels.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
United States	....	....	....	....	....	....
Chinese	....	....	....	....	....	....
British	41	29,182	19	7,290	60	36,472
German	15	9,637	20	8,045	35	17,682
Total	56	38,819	39	15,335	95	54,154

TARIFF AND TAXATION IN CHINA.

REPORT BY CONSUL CAMPBELL, OF FOO-CHOW.

The customs tariff of China has not undergone any material changes for many years. The nations having treaty relations with China must be consulted in all cases before any change or modification can be made. China, it must be understood, relinquished control—though unwillingly—over matters of this character, and before any change can be made in the commercial or maritime affairs of her principal ports the civilized countries of the world having treaties with her must be consulted and their consent obtained. The duties on imports and exports, tonnage, and other dues are fixed by treaty regulations, and can not be changed without the consent of the treaty powers.

HISTORICAL STATEMENT.

The policy of China originally was to exclude foreigners of all nationalities from the country, and the Imperial Government never voluntarily consented to a change of this policy, and the right of foreigners to enter and reside at certain ports was obtained by the force of arms. Foreigners were not permitted to enter any of the ports until about the year 1841. The Portuguese were the first to visit the country, which they did in 1516, and regular voyages for the purposes of trade and barter were made by them for some years thereafter. It is a matter of history, however, that the Arab navigators made regular voyages to the ports of eastern Asia as early as the tenth century. After the Portuguese came the Dutch and, in their turn, the English and Americans. The East India Company early enjoyed a monopoly of trade in the far east, and established a trading post at Canton towards the close of the seventeenth century and continued in business until 1834. For reasons not necessary to state, England declared war against China in 1839, and Canton was the first point assailed; and in 1841, to prevent capture, the Chinese paid a large sum of money as ransom, and hostilities were for the time suspended. But the deep-seated enmity of the Chinese to foreigners was manifested by hostile acts, and war was again renewed. A treaty of peace was signed at Nanking, in 1842, and under this five of the ports of China were thrown open to foreign trade and commerce. It was provided in that treaty that British subjects, with their families and establishments, should be allowed to reside for the purpose of carrying on their mercantile pursuits without molestation or restraint at the cities and towns of Amoy, Foo-Chow, Ningpo, and Shanghai. But the presence of foreigners was hateful to the Chinese, the treaty was unpopular in that it permitted foreigners to reside in the cities named and to carry on trade and commerce, and the Chinese soon began to annoy and insult the people whose presence was so irksome and objectionable. The British fleet opened up hostilities at Canton, and the Chinese in turn pillaged and burned the residences and property of the foreigners at that place, but the city was forcibly taken by the English in 1857. Another treaty was signed at Tien-Tsin, in 1858, and a customs tariff was agreed to and made a part of the treaty.

THE FAVORED NATION CLAUSE.

The first treaty with the United States of America was signed in 1844. What is known as "the favored nation" clause appears in the treaty of Tien-Tsin. A supplementary treaty, adopting a tariff of duties on American trade, was signed at Shanghai on November 8, 1858. The so-called favored nation clause provides that should the Chinese Government at any time grant to any nation, or the merchants or citizens thereof, any rights, privileges, or favors connected with navigation, commerce, political, or other intercourse which have not been conferred in the treaties with the United States, these should at once freely inure to the benefit of the United States, its officers and citizens. This gives to the United States or its citizens any special privileges or favors which any other nation may obtain by treaty. Other countries have had the favored nation clause inserted into their treaties, so that nearly all are now on an equal footing.

Although it is said that it is a poor rule that does not work both ways, nevertheless, the favored nation clause is not one of the kind. This clause is a simple stipulation that any privilege granted to any one nation having treaty relations with China shall be extended to all other nations in the same position. The Chinese have attempted, though unsuccessfully, to enforce the converse of the proposition, that is, that any concession made to China by one treaty-making power should be binding upon all others, but the treaty-making powers have refused to concede the point. This claim on the part of China has led to considerable difficulty in settling revenue and tariff questions.

THE EXPORT DUTY.

All taxes collected by the customs officials are paid into the imperial exchequer at Peking for the use of the Imperial Government. The rates paid upon both imports and exports are fixed by treaties, and have not been materially changed since they were first adopted. The export duty is exceedingly burdensome, and, unfortunately, is ruining the tea trade here. While the duties upon imports have the tendency to stimulate production here, the duties levied upon exports have the contrary effect. The teas of China have to submit to a heavy burden of taxation before leaving the country, while those grown in India and Ceylon are exported free. The result is that China teas are fast being crowded out of the markets of the world. The export duty is excessive; it was originally fixed at 2½ taels per picul, which was then supposed to represent an ad valorem tax of 5 per cent., but, as the average price of tea has never reached so high a figure as 50 taels per picul, it is ruinous to enforce the collection of so heavy a tax. If the value of tea were five times as high as it is, the tax of 2½ taels per picul would be as much as it ought to bear. The Chinese tariff has not been revised for many years, and circumstances are different from what they were when it was adopted; but, as all the treaty-making powers must be consulted, it is a difficult and uncertain undertaking. The foreign merchants are loudly complaining against the heavy export duty levied upon tea, but the native producer is the sufferer, for the burden falls upon him.

THE LIKIN TAX.

The object of the commercial clauses in the treaties with China was to establish the amount of charges leviable upon merchandise imported into or exported from the country; but, as all the revenue collected by the duties levied at the ports of entry is turned into the imperial exchequer at Peking for the use of the Imperial Government, the provinces and municipalities are left unprovided, and the Chinese officials were obliged to improvise other systems of taxation to raise money to meet the expenses of the provincial governments and their officials and to provide for the wants of the towns and villages and other municipal subdivisions of the country. The expenses of the Tai-Ping rebellion had to be provided for. Inland dues were levied and collected upon the merchandise after it had paid the import duties and had passed through the custom-houses. This tax is known by the term "likin," and is collected as tolls upon merchandise imported into the country. Likin is also imposed upon exports, so that all articles leaving as well as those coming into the country must pay the likin tax. Foreign officials have strongly remonstrated, without avail, against this tax, claiming that it is in violation of treaty rights, that the tariff having fixed the taxes to be paid by merchandise all others collected upon them were illegal. But the Chinese contended that before the merchandise intended for export reached the treaty ports it belonged to the Chinese, and that foreigners had nothing to say about it whatever; and as to merchandise imported after being sold by the foreign importer and having passed the concession and into the possession of the Chinese, for a like reason it was no concern of the foreigner.

HOW THE LIKIN TAX IS COLLECTED.

When merchandise is brought from the interior of China, it generally has to pass through one or more provinces and a number of municipalities or taxing districts before reaching the port, all of which claim the right to levy likin tax. There is a tax collector for each of these districts, as a general rule, and this tax man is called the "barrier." The trader has to pay the barrier at every station on the way to the port. The same process is gone through in the case of merchandise leaving the port for the interior; likin is collected at every barrier from the port to the point of destination. In order to avoid these numerous enforced contributions to the revenue, a system of transit passes prevails. An importer, after paying the import duty, by paying 50 per cent. of the amount additional, can obtain from the customs officials a transit pass which authorizes him to transport his goods into the interior by paying likin at only one place; and an exporter, upon application to the provincial authorities, can obtain a transit pass which allows him to take his goods out of the country by paying likin only once and that is at the last barrier.

OTHER IRREGULARITIES.

The Chinese officials, as a rule, have no fixed salaries, and their compensation is obtained by what is known here as "squeezing." It is so common that its practice is looked upon as a matter of course and creates no comments whatever. In order to get out of or into the interior of the country with merchandise with as light a contribution of likin as possible, the owner voluntarily "sees the barrier" and passes on to his destination. A barrier who is exorbitant in his demands can not long hold his position. While it is understood that officials may do such things, yet, if one goes beyond reasonable limits in his exactions, the people, who are all-powerful in their way, will drive him from his position.

The system is corrupt and oppressive, paralyzes trade, discourages industry, and drives all enterprise out of the people.

THE TAX ON OPIUM.

According to the commercial treaty of November, 1880, between the United States and China, citizens of the United States are not allowed to deal in opium in China, nor are vessels owned by them, whether employed by themselves or others, nor vessels owned by others but employed by them allowed to carry opium. This treaty absolutely shuts out Americans from traffic in opium in any way. The question of taxation of opium is therefore not of special interest to the people of the United States.

Opium seems to have been covered by a separate rule from other commodities and there have frequently been controversies between importers and the Chinese authorities as to whether likin tax should be imposed upon opium at all or not. The foreigners contended that the import tax should cover all dues to be exacted from opium, but as soon as the drug passed the boundaries of the foreign settlements and into the hands of the Chinese the tax has been imposed and collected. The heavy taxation of opium has stimulated its production in the country, and, as a consequence, the Chinese revenue collected on imports from this commodity has been appreciably reduced. The revenue suffers from the reduction of exports, which have been falling off for several years past.

JNO. TYLER CAMPBELL,
Consul.

UNITED STATES CONSULATE,
Foo-Chow, October 12, 1889.

Export duties in Pernambuco.—Under date of November 11, 1889, Consul Borstel reports that the duties on exports have been increased in the province of Pernambuco by an act of the provincial government on October 23, ultimo, and to take effect on November 1, upon the following articles, viz: Sugar 3 per cent. and 5 cents per bag if the cloth of the bags is not made in the province, or 5 cents per barrel if said barrels are of foreign wood; cotton, 2 per cent.; hides, 20 per cent.; goat-skins and sheep-skins, 10 per cent.; tanned leather, 30 per cent.; half-hides coming from other provinces, 25 per cent.; dry salted hides and skins, 6 per cent.

All steamers and sailing vessels entering the port of Pernambuco, whether foreign or national, 10 cents per ton upon net tonnage. The duty has been raised on all exports, no matter how small.

THE PROVINCE OF TREBIZOND.

REPORT BY CONSUL JEWETT, OF SIVAS.

The most important part of this consular district is the vilayet of Trebizond, which includes the sea-coast and the ports of Trebizond, Samsoon, Kerasonde, Ordon, and Onnieto. The first two are the only ports of importance on the southern shore of the Black Sea. Trebizond is the entrepôt for the trade of Erzroom, Harpoot, Diarbekir, and the Koordistan district generally, but its main importance as a sea-port lies in the fact that it is the connecting link, in a measure, between Persia and the west. Its Persian trade in former years was much greater than it is now. The development of Batoum under Russian rule and the building of the railroad from Batoum and Poti to the Caspian Sea have diverted much of the trade which formerly centered at Trebizond, but this trade is still important enough to merit special interest.

Having in a former report given the statistics of the commerce of the port of Samsoon, I now submit some details regarding the trade of the city of Trebizond and of the other ports of the vilayet, together with some particulars concerning the population, products, resources, and character of the province, having a more or less intimate connection with the commerce of that part of Asia Minor. The facts and figures given have been obtained from various sources, but chiefly from information kindly furnished me by officials in the public service.

GEOGRAPHICAL FEATURES.

The province of Trebizond is situated on the southern coast of the Black Sea. It forms the northwestern portion of the Turkish possessions in Asia Minor. Its eastern boundary lies on the Russian territory obtained as a result of the last war. The length of the province is 254 miles, and its average width 42 miles. About one-fifth of its area is under cultivation and about as much more is capable of cultivation. About one-sixth is wooded. The balance, or a little less than one-half the area, is composed of mountainous country and waste land.

The following table shows the estimated amounts of cultivated, forest, and waste land in the province and in each of the four sandjaks or districts into which it is divided for administrative purposes:

Sandjaks.	Area in acres.			
	Cultivated.	Uncultivated.	Forests.	Waste or pastures.
Trebizond	417,150	518,340	683,320	12,922,800
Samsoon	664,430	356,620	289,080	652,620
Lazistan	97,020	157,740	140,810	608,960
Gernush-hané	169,620	203,720	215,600	643,940
Total	1,348,220	1,236,420	1,328,810	3,197,820

POPULATION.

According to the best figures that can be obtained, the population of the vilayet amounts to 1,047,700. The distinguishing lines on which population in Turkey is divided are those of religion. In this respect the population of the province is divided as follows:

Inhabitants.	Sandjaks.				
	Trebizond.	Samsoon.	Lazistan.	Gernush-hané.	Total.
Moslem	334,975	214,135	138,820	118,770	806,700
Greek	91,000	77,000	16,000	9,900	193,000
Gregorian Armenian	20,000	17,000	5,000	2,100	44,100
Catholic Armenian	1,200	900	100	100	2,300
Protestant Armenian	235	565			800
Roman Catholic	180	150	40	30	400
Hebrew	110	250	40		400
Total	447,700	310,000	160,000	130,000	1,047,700

The dominant race, the Mohammedan Turks, forms, therefore, eight-tenths of the population. These are again subdivided, according to race, as follows:

Osmanli, or Turks proper	691,700
Lazes and Georgians	55,000
Circassians	60,000
Total Musselmans	806,700

The Greeks and Armenians reside principally in the sea-coast towns, and are nearly all engaged in commerce. The Lazes reside for the most part near the Russian frontier and in the kaza of Gernush-hané. The race is of mixed blood—Georgian and Turkish—but their religion is Greek, and they speak a corrupt dialect of that language. Their women, as well as the men, are distinguished for courage, and possess that quality to such a degree that, as has been said by others, one might well believe them to be the descendants of the Amazons, who once made this coast famous by their deeds of prowess.

The Circassians are a brave but lawless race, and in many parts of Asia Minor the name Circassian is synonymous with robber. They are principally emigrants from Russian territory, and in this vilayet are of a more peaceable character and more occupied with agricultural labor than is usually the case with these people. They are distinguished for fine physique and for natural shrewdness, intelligence, and independence of character.

Some 40 miles south of Trebizond there is a community which is highly interesting to the student of history and of sociology. When the "Ten Thousand," on the famous retreat described by Xenophon, passed through this country, a portion of the army was cut off from the main body and left behind. They were well treated by the surrounding tribes, intermarried with them, and settled down permanently in a community of their own. The people now living in the district referred to, included in some nine villages, claim to be the direct descendants of these soldiers of Xenophon. Their language is Greek, and they profess the Christian religion, though, under the pressure of the Moslem conquest, they nominally adopted Mohammedanism. Some thirty years ago they formally declared themselves Christians, but, on the other hand, many of them bear Mohammedan names, and in every village there is a mosque. As Christian subjects in the Ottoman Empire are exempt from military service, paying a head-tax instead, the anomalous position these people hold frequently causes difficulties with the authorities. Their local customs, dialect, traditions, and mixed religion offer an interesting field for investigation and study.

The people of the vilayet of Trebizond are, as a whole, more civilized than in other parts of Asia Minor, the natural result of their intimate commercial relations with Europe. They retain to a large degree, however, their primitive customs, especially in the patriarchal character of their family life and in the seclusion of the female sex. On the sea-coast the people are largely engaged in fishing and in commerce, and are fairly prosperous and contented. In the interior districts a large proportion of the peasant class are life tenants on the extensive estates of the beys and agas, and are practically in serfdom. They are allowed to retain the produce of the land they cultivate on the payment of a fixed tribute in kind and in money. They are bound to till and sow the lands of the bey, gather and thresh the crop, and perform any other services that may be required of them, such as providing the beys with fuel, going on errands of long distances, and are constantly exposed to their lord's abuse and tyranny. The abuses which formerly existed in the relation of these tenants to the great land-owners have been in late years considerably modified, and instances of cruel treatment are now comparatively rare. Enough of the feudal system still exists, however, to make the lot of the peasant any thing but an enviable one.

CLIMATE.

The climate of the vilayet is temperate, but very humid, owing to its situation between the sea and the mountains. The towns on the sea-coast are unhealthful, on account of the malarial fevers which prevail, but in the interior the sanitary conditions are better. At Trebizond winter is usually mild; it commences about the 1st of December. The spring is cold and rainy. In summer the temperature is high and the air oppressive; changes are sudden and frequent, a perfect calm being often succeeded almost instantly by a furious tempest.

AGRICULTURE.

Miscellaneous.—The principal agricultural products of the province are corn, used by the rural population and the poorer classes in the towns as their principal article of food; nuts, grown largely near Trebizond and

Kerasonde, where extensive plantations are devoted to their culture, and which form the principal item of export; white beans, largely exported to France; fruit and vegetables, which are of excellent quality and of all kinds. Grapes were formerly cultivated on a large scale, but the appearance of the phylloxera has had a very damaging effect, and vineyards are now much neglected and in many cases wholly abandoned.

Tobacco.—The most important production of the province is tobacco, the traffic in which is a monopoly under the control of the Régie Ottomane des Tabacs. There are 14,118 persons engaged in its cultivation. The finest grown in the province is that of Baffra and Samsoon. This tobacco has a high reputation throughout the world, and great quantities are exported to Europe and America. The amount grown in 1888, when the crop was below the average, was 650,000 batmans,* equal to about 10,000,000 pounds. The various rates at which different grades and their proportion were valued are shown by the following figures, the prices of the tobacco crop of 1888 (Samsoon and Baffra): 20 per cent. of the total crop sold for 8½ cents per pound, 7 per cent. at 42 cents, 13 per cent. at 34 cents, 15 per cent. at 24 cents, 20 per cent. at 14 cents, 10 per cent. at 15 cents, 5 per cent. at 22 cents, and 10 per cent. no value.

According to the usages of the Régie des Tabacs, the tobacco in leaf is divided into nine grades or qualities. The first, second, and third are exported to Europe and America; these three sorts amount to about 600,000 pounds; the fourth grade, amounting to about 350,000 pounds, is called the "Monopole Ottomane;" the fifth grade, 170,000 pounds, is sold in Marseilles; the sixth, 120,000 pounds, is exported to Egypt; the seventh is known as "Le Londres" and the eighth as "Le Brême," and together amount to about 290,000 pounds; the ninth grade is manufactured by the Régie to the amount of about 220,000 pounds. The leaf tobacco is put up in bales weighing about 140 pounds each. The estimated average cost of packing and transporting each bale from the place of production to on board ship is $2.65.

Principal productions of the vilayet of Trebizond, 1888.

Sandjaks.	Wheat.	Barley.	Corn.	Rice.	Hemp.
	Hectoliters.	*Hectoliters.*	*Hectoliters.*	*Kilograms.*	*Kilograms.*
Trebizond	36,090	28,130	560,090	565,360	303,090
Lazistan	1,170	17,210	253,320	53,870	173,670
Samsoon	90,110	172,240	384,210	1,185,240	225,910
Gernush-hané	32,480	46,730	23,430	....	2,450
Total	159,850	264,310	1,221,050	1,804,470	705,120

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*1 batman = 16½ pounds.

Principal productions of the vilayet of Trebizond, 1888—Continued.

Sandjaks.	Hemp-seed.	Beans.	Filberts.	Raisins.	Walnuts.	Hay.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Trebizond	10,420	6,689,100	4,752,630	320,510	109,620	7,758,560
Lazistan	43,740	1,422,380	220,910	390,280	102,240	10,067,970
Samsoon	114,240	635,620	740	67,410	87,670	1,309,630
Gernush-hané	....	63,480	10,000	779,960	20,500	4,622,500
Total	168,400	8,810,580	4,984,280	1,558,160	320,030	23,758,660

Sandjaks.	Vegetables.	Fruits.	Honey.	Olives.	Tobacco.	Miscellaneous.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Trebizond	3,343,650	438,650	160,300	201,000	1,200,000	137,000
Lazistan	233,790	382,030	78,200	61,550	....	106,000
Samsoon	3,508,200	1,694,980	161,900	12,950	4,949,800	215,000
Gernush-hané	591,690	311,940	47,600	....	....	75,000
Total	7,586,840	2,827,600	448,000	275,500	6,149,800	533,000

MINES AND MINERALS.

Like all other parts of Asia Minor, the vilayet of Trebizond is very rich in minerals, and, as in all other parts of the Turkish Empire, these resources are almost entirely neglected. In the mountain ranges that traverse the southern part of the province there are some 120 known mineral deposits. The more important of these are distributed as follows: In the sandjak of Trebizond, 21 mines of argentiferous lead, 34 of copper, 3 of lead and copper, 2 of manganese, 10 of iron, and 2 of coal; in the sandjak of Samsoon, 1 of argentiferous lead and 1 of manganese; in the sandjak of Gernush-hané, 37 of argentiferous lead, 6 of copper.

None of these deposits are worked to any advantage. The lack of enterprise, difficulties of transportation, and restrictions imposed by the Government prevent the development of these resources, which might, under proper management, add so much to the wealth of the country. There is an abundance of wood, as well as the two undeveloped coal deposits referred to, for working the ores, so that the failure to develop these resources seems the more inexcusable.

FORESTS.

As has been noted, about one-sixth of the area of the province is covered with forests. The best of these are in the Trebizond, Kerasonde, and Samsoon districts. The principal varieties of wood found are beech, chestnut, oak, pine, birch, and box-wood.

FISHERIES.

On the coast east of Trebizond and in the sandjak of Lazistan a great number of the inhabitants are engaged in fishing. Porpoises are caught for the oil, which is exported to Europe. Anchovies are so abundant that they sell at extremely low prices—as low as at the rate of less than 1 cent per pound. At certain seasons the catch of these fish is so large that they are used as a fertilizer in the fields.

SCHOOLS.

Alfred Bilioth, esq., Her British Majesty's consul at Trebizond, gives the following figures regarding the schools of the province:

School report, vilayet of Trebizond, 1888.

Sandjaks.	Communities.	Number of schools, mendrees, etc.	Number of teachers.	Annual expense of schools.	Scholars.			Population, excluding foreigners.	Proportion per 100.
					Boys.	Girls.	Total.		
Trebizond	In the town	82	159	£5,196	3,403	1,033	4,436	30,000	14¾
	Mohammedan	753	765	11,470	22,234	700	22,934	336,000	6¾
	Greek orthodox	136	159	3,140	7,006	330	7,436	73,800	10½
	Armenian	29	38	920	895	275	1,170	14,500	9⅛
	Total	918	962	15,530	30,235	1,305	31,540	424,300	7½
Samsoon	Mohammedan	735	741	10,750	20,720	400	21,120	197,500	10¾
	Greek orthodox	135	147	3,430	3,450	160	3,610	50,000	7¼
	Armenian	17	22	650	592	165	757	22,000	3½
	Total	887	910	14,830	24,762	725	25,487	269,500	9½
Lazistan	Mohammedan	806	812	12,096	23,893	600	24,493	211,000	11½
	Greek orthodox	5	5	100	225	....	225	2,000	11¼
	Armenian	....	....	....	....	....	....	100	....
	Total	811	817	12,196	24,118	600	24,718	213,100	11½
Germush-hané	Mohammedan	159	163	1,550	2,586	100	2,686	37,800	7
	Greek orthodox	33	48	750	1,810	15	1,825	17,000	10¾
	Armenian	1	2	80	70	20	90	900	10
	Total	193	213	2,380	4,466	135	4,601	55,700	8¼
	Grand total	2,391	3,061	50,132	86,984	3,798	90,782	992,600	9⅛

CATTLE.

The number of cattle in the province is estimated as follows: Cows and oxen, 40,000; sheep and goats, 80,000; horses and mules, 50,000.

IMPORT AND EXPORT DUTIES.

Custom-house inspection is of two kinds, viz, the ordinary, on goods imported for Turkey, and special, on goods imported in transit to Persia. Duties are 8 per cent. on imports and 1 per cent. on exports. Agricultural machinery is exempt from duty. Goods imported in transit for Persia are exempt from duty at Turkish ports, provided the conditions as to seals, registration of passports to the frontier, bonds for performance, etc., are strictly complied with.

TRADE OF TREBIZOND.

As has been said, Trebizond is the emporium for the trade between eastern Asia Minor and Persia and Europe, 80,000 packages (boxes, bales, etc.)

being transported from that city to Persia annually, and 150,000 to the interior of Asia Minor. The exportations from Persia amount to 200,000 packages, and from the interior to about as much more, a total traffic of 630,000 packages. In 1872 a macadamized wagon road was completed, running south from Trebizond 180 miles. The advantages for a railroad are too apparent to need comment here. Other roads from the sea-coast to the interior are from Kerasonde to Kara-Hissar and from Samsoon to Sivas.

BUDGET.

The budget of the province for the year 1888–'89 shows the following estimates (1 piaster = 4.4 cents):

Receipts.	Piasters.	Expenditures.	Piasters.
Property and income tax	7,648,989	Government administration	1,837,658
Military exemption income tax	2,660,501	Financial administration	1,782,949
Tithes on agricultural products:		Department of justice	1,262,080
Sandjak of Trebizond	7,202,669	Department of education	244,239
Sandjak of Samsoon	8,012,986	Department of taxation	1,017,787
Sandjak of Lazistan	1,099,116	Department of religion	294,330
Sandjak of Gernush-hané	780,839	Sanitary administration	8,760
Sheep tax	4,804,499	Police	2,627,294
Estate fees	392,034	Forests and mines	138,192
Judicial fees	402,961	Collection of tithes	2,059,106
Licenses	329,932	Public works	1,867,510
Forest revenues	284,550	Pensions	834,691
Mine revenues	127,650	Miscellaneous	10,384
Fishery revenues	236,721	Total	13,984,980
Miscellaneous	139,418	Balance at disposition of Central Government	20,137,985
Total	*34,122,865	Total	*34,122,865

*$1,501,406.

Receipts from duties on imports and exports are not included in the above table.

HARBORS.

There are a number of ports in the vilayet, but none of them have safe harbors. Vona, near Ordon, is in a measure protected by the promontory of the same name. The port of Samsoon is only a roadstead. Trebizond has no harbor worthy of the name; there is a jetty, but it affords very inadequate protection from a storm, and in violent weather vessels touching there have to seek protection between the capes of Yeros and Zertoon, off Platana.

IMPORTS AND EXPORTS OF TREBIZOND.

The following tables show the exports and imports at Trebizond for the year 1888 of goods from and to Persia in transit and of goods imported and exported to and from Asia Minor. From these tables it will be seen that the total value of exports from Persia via Trebizond amounted to $1,071,750 (Table No. 1); imports to Persia, $2,917,710 (Table No. 2); exports from Trebizond, $1,432,148 (Table No. 3); imports at Trebizond, $2,518,146

(Table No. 4). In these tables the imports of petroleum, entirely from Russia, are not given, as it has been impossible to get reliable figures.

The principal articles of export from Persia are tembeki, a sort of tobacco specially prepared for nargileh, or water pipes, to the amount of about $472,000; shawls and silks, $160,000; carpets, $260,000. A large proportion of the imports for Persia consists of cotton, linen, and woolen cloths, amounting in value to about $2,200,000; sugar, from France, $100,000; silks, $100,000; tea, from England, $332,000. The animal products exported, such as eggs, fish-oil, dried meat, wool, etc., represent a value of about $250,000.

The imports for Asia Minor are principally cotton and woolen cloth, $2,000,000; manufactured metals, $250,000; soap, candles, matches, drugs, glass, crockery, and other manufactured articles, $160,000.

1.—*Exports from Persia via Trebizond, 1888.*

Articles.	England.	Turkey and Egypt.	Germany and Austria.	France.	Russia.	Italy.	Belgium.	Bulgaria and Roumania.
Shawls and silks		$161,920						
Dried fruits		1,683		$1,905				
Wool	$2,392			1,290				
Persian cottonades		9,752						
Gall-nuts, gums	8,096			2,865				
Cotton			$2,557					
Goat-skins		3,036		11,870				
Raisins	6,310	129	5,564	1,520				
Silk and opium	16,560	26,496		11,400				$32,000
Carpets	56,673	147,200	37,530	17,750		$1,840	$275	910
Tembeki		425,980	515			1,850		43,600
Miscellaneous	3,680	19,173	2,990	2,390	$2,210	220	185	550
Total	93,711	795,369	49,156	50,990	2,210	3,910	460	77,060

Articles.	Total for 1888.			Total for 1887.	
	Kilograms.	Value.	Number of packages.	Kilograms.	Value.
Shawls and silks	220,000	$161,920	225	50,400	$417,300
Dried fruits	13,000	3,488	143	48,500	13,400
Wool	20,000	3,682	230	19,000	3,400
Persian cottonades	5,300	9,752	82	8,600	14,200
Gall-nuts, gums	29,800	10,961	418	19,000	7,000
Cotton	13,900	2,557	146	3,000	500
Goat-skins	54,000	14,900	526	36,100	10,000
Raisins	105,000	12,513	1,168	59,800	11,200
Silk and opium	15,600	86,456	204	29,250	164,000
Carpets	285,000	262,178	2,862	304,150	279,000
Tembeki	1,282,500	471,945	12,972	1,254,500	461,000
Miscellaneous	137,500	31,398	1,814	68,600	18,500
Total	1,983,600	1,071,750	20,790	1,900,000	1,399,500

2.—*Imports at Trebizond, in transit for Persia, 1888.*

Articles.	England.	Turkey and Egypt.	Germany and Austria.	France.	Russia.	Italy.	Belgium.
Matches	$1,245		$20,976			$368	
Cotton thread	4,600		2,760			1,270	
Hides and leather	1,104	$1,472	2,944	$13,156			
Cloths	23,000		213,992	23,900			$18,400
Gold thread		1,104	4,416	1,472			
Cottonades	1,962,268	5,888	9,338	9,863		6,026	
Metals	22,000		5,520	8,280			9,660
Perfumery, etc	1,044	552	13,800	11,592			
Books and paper	3,782	1,932	4,048	1,656		368	
Glass and crockery	2,944		14,073	6,624		2,760	1,104
Hardware	7,728	1,104	24,178	4,416			3,864
Silks and velvets	3,680	1,104	12,512	13,800		9,200	
Sugar				42,195			
Tea	332,304						
Window-glass			884	736			2,926
Miscellaneous	2,815	4,140	1,472	1,840	$1,104	828	368
Total	2,368,514	17,296	330,913	139,530	1,104	20,820	36,322

Articles.	United States.	Bulgaria and Roumania.	Total for 1888.			Total for 1887.	
			Number of packages.	Kilograms.	Value.	Kilograms.	Value.
Matches			2,693	198,000	$22,589	100,000	$15,581
Cotton thread			180	17,300	8,630	16,000	7,728
Hides and leather	$1,472		215	23,500	20,148	20,000	18,400
Cloths			1,413	140,300	279,292	110,000	321,540
Gold thread			31	1,200	6,992	1,000	7,544
Cottonades			28,333	3,091,100	1,993,383	2,640,000	1,706,729
Metals	359		4,510	166,300	45,819	158,800	43,829
Perfumery, etc			532	49,000	26,988	26,200	19,284
Books and paper			660	50,700	11,786	25,000	5,888
Glass and crockery			1,673	155,600	27,505	130,000	28,520
Hardware	368		2,450	240,000	41,658	212,000	43,000
Silks and velvets			130	9,100	40,296	6,900	31,280
Sugar			4,410	441,000	42,195	1,125,200	102,599
Tea			6,296	602,000	332,304	805,000	444,360
Window-glass			910	63,000	4,546	37,000	2,070
Miscellaneous	828	$184	440	58,200	13,579	55,000	12,880
Total	3,027	184	54,876	5,306,300	2,917,710	5,468,100	2,811,232

3.—*Exports from Trebizond, 1888.*

Articles.	England.	Turkey and Egypt.	Austria and Germany.	France.	Russia.	Bulgaria and Roumania.	Holland and Belgium.	Greece and Italy.
Wheat		$5,100		$9,869				
Lumber	$2,809			3,864				
Gums and gall-nuts	17,370			599				
Fruits and vegetables		27,604	$504	2,219	$3,434			$4,490
Flaxseed	15,947		162	40,922			$3,202	
Beans		42,670		36,492		$1,104		2,326
Walnut planks	4,984	52	7,765	29,661			884	
Corn	2,208	17,214	3,655	13,892				3,485

3.—*Exports from Trebizond, 1888*—Continued.

Articles.	England.	Turkey and Egypt.	Austria and Germany.	France.	Russia.	Bulgaria and Roumania.	Holland and Belgium.	Greece and Italy.
Hazel-nuts	$34,798	$108,369	$4,951	$9,031	$32,038	$14,983	$20,572	$4,527
Barley		483	497	9,353				
Tobacco	7,772	107,015		7,934			15,622	
Glue		9,467				3,298		1,134
Yellow berries and opium	1,840	1,840	442	3,680	460	297		810
Butter and eggs		70,288		313				23,000
Sheep and cattle		217,120						
Sausage-skins			10,525	486				
Wax		3,092		589		2,098		1,215
Fish-oil		8,115	7,563	1,298		3,202		2,043
Manganese				3,036				
Wool	5,944		1,325	5,796				
Paslourma (dried meat)		50,306						
Skins (sheep)		14,242		57,132	6,542	276		386
Smoked tongues		4,600			920	920		65
Goat-skins	5,005			1,988				
Fur	1,472	1,840	736	920	146	184		184
Leather	184	26,220						
Nets		30,176	957		516	16,560		736
Mattocks, etc	736	4,416	148	1,104	2,024	184		74
Horns, bones, etc				1,854				
Re-exported:								
Tea and coffee		5,244			1,178			
Sacks		52,992			442			
Chemicals		1,886			534			
Boxes and barrels		736						
Metals		1,380						
Clothing	736	11,519		5,520	1,104			
Miscellaneous	2,944	21,584	2,760	3,680	4,600	3,680	920	2,208
Total in 1888	104,749	845,570	41,990	251,232	53,938	46,786	41,200	46,583
Total in 1887	101,854	916,082	83,278	162,599	52,762	39,421	28,198	20,275

Articles.	Total, 1888.			Total, 1887.	
	Number of packages.	Kilograms.	Value.	Kilograms.	Value.
Wheat	4,890	452,000	$14,969	1,318,500	$42,456
Lumber	450	464,400	6,673	3,500	48
Gums and gall-nuts	593	48,800	17,969	46,750	17,204
Fruits and vegetables	10,464	1,003,600	38,251	1,119,300	51,487
Flaxseed	17,500	1,637,000	60,233	1,330,000	48,944
Beans	20,445	2,244,400	82,592	1,583,900	58,288
Walnut planks	980	237,000	43,346	75,300	12,251
Corn	18,370	1,832,500	40,454	2,767,600	61,109
Hazel-nuts	42,042	3,386,500	229,269	2,894,950	213,069
Barley	6,406	561,700	10,333	449,400	8,269
Tobacco	13,573	1,003,500	138,343	869,600	115,027
Glue	2,850	215,800	13,899	211,100	15,486
Yellow berries and opium	755	63,000	9,369	70,500	4,091
Butter and eggs	2,856	508,700	93,601	323,700	59,561
Sheep and cattle	54,514	2,950,000	217,120	3,000,000	220,800
Sausage-skins	204	27,200	11,011	18,700	8,602
Wax	219	19,000	6,994	9,200	4,232
Fish-oil	2,760	402,500	22,221	406,500	37,998
Manganese	1	330,000	3,036		
Wool	821	71,000	13,065	46,300	8,520
Paslourma (dried meat)	3,658	273,400	50,306	251,600	46,295

3.—*Exports from Trebizond, 1888*—Continued.

Articles.	Total, 1888.			Total, 1887.	
	Number of packages.	Kilograms.	Value.	Kilograms.	Value.
Skins (sheep)	2,850	284,700	$78,578	291,600	$82,414
Smoked tongues	803	70,700	6,505	41,000	3,772
Goat-skins	207	19,000	6,993	71,900	39,689
Fur	460	39,800	5,482	27,200	3,358
Leather	540	57,400	26,404	72,600	40,076
Nets	570	66,500	48,945	84,600	62,266
Mattocks, etc	332	23,600	8,686	9,400	3,460
Horns, bones, etc	853	84,000	1,854	33,500	1,079
Re-exported:					
Tea and coffee	473	34,900	6,422	15,800	2,918
Sacks	782	96,800	53,434	59,600	38,390
Chemicals	371	23,400	2,420	10,000	1,068
Boxes and barrels	1,352	16,000	736	24,000	1,123
Metals	842	15,000	1,380	9,100	838
Clothing	872	51,300	18,879	55,100	18,879
Miscellaneous	3,242	230,300	42,376	392,400	72,202
Total in 1888	218,900	18,845,400	1,432,148	18,001,600	1,404,469
Total in 1887	217,017	18,001,600	1,404,469		

4.—*Imports at Trebizond, 1888.*

Articles.	England.	Turkey and Egypt.	Germany and Austria.	France.	Russia.
Spirits, beer, wine	$74	$17,902	$18,104	$9,333	$7,116
Coffee	11,114	2,245	1,693	79,047	
Perfumery	1,443	414	2,465	5,326	
Fruits and comestibles	736	16,997	895	4,564	6,936
Flour		32,075		957	33,831
Olive-oil		63,049		65	
Macaroni biscuits		3,967	78		2,704
Corn, barley, wheat		6,582			243
Olives		9,259			
Rice	663	12,017			4,157
Sugar		1,789	79,442	60,901	23,091
Tea	58,954				
Cotton		3,184			
Dyes		1,634			
Manufactured leather	1,840	14,021		17,020	21,216
Silk		2,944			2,208
Tobacco, cigars		58,512			
Valonia		2,201			
Broadcloth, clothes	15,456	9,200	170,310	[illegible]	3,864
Fez			14,352		
Carpets	6,054		14,684	4,380	773
Calico	918,969	45,788	5,741	8,566	12,034
Empty sacks and canvas	23,405		1,822	15,368	
Silk cloth and velvet	736	737	16,560	20,240	
Steel			5,226		
Nails				2,264	
Manufactured copper	3,680				
Block-tin	12,310				
Iron	15,052				
Tin	619				
Sewing-machines	6,100		2,705	2,540	
Iron-mongery	112		1,289	1,343	479

4.—*Imports at Trebizond, 1888.*—Continued.

Articles.	England.	Turkey and Egypt.	Germany and Austria.	France.	Russia.
Wire	$368	....	$3,055	$2,870	....
Candles	....	....	....	2,010	....
Bricks, tiles, and cement	102	....	....	2,135	$46
Vegetable dyes, indigo, etc	3,588	....	....	3,155	....
Drugs	644	$1,178	1,583	11,740	....
Mirrors, glass, and porcelain	1,988	884	9,228	1,620	122
Stationery, books	525	1,932	20,572	4,048	74
Paint and oil	1,840	368	3,688	2,392	674
Soap	....	8,854	....	148	442
Ink, alum, starch, etc	3,312	920	7,106	1,840	792
Jewelry and watches	....	1,380	2,944	1,380	....
Rope	....	5,587	....	....	....
Musical instruments, furniture	1,472	47,160	3,036	6,078	5,520
Cotton thread	27,922	....	16,836	2,208	....
Tarpaulin	1,196	....	....	....	....
Woolen cloth	552	4,858	1,116	....	1,785
Sundries	12,144	4,343	21,197	10,166	386
Total in 1888	1,132,970	381,981	425,727	305,140	128,493
Total in 1887	1,280,561	378,542	513,990	460,118	189,886

Articles.	Italy and Switzerland.	Sweden and Belgium.	Greece.	Roumania and Bulgaria.	Value.
Spirits, beer, wine	$74	$1,426	$365	....	$54,394
Coffee	....	....	....	....	94,099
Perfumery	....	....	....	....	9,648
Fruits and comestibles	442	....	....	....	33,065
Flour	....	....	....	$928	67,791
Olive-oil	....	....	773	....	63,887
Macaroni biscuits	1,546	....	194	....	8,489
Corn, barley, wheat	....	....	....	43	6,868
Olives	....	....	....	....	9,259
Rice	470	....	....	....	17,307
Sugar	....	1,380	....	....	166,603
Tea	....	....	....	....	58,954
Cotton	....	....	....	....	3,184
Dyes	....	....	....	....	1,634
Manufactured leather	....	....	552	....	54,649
Silk	....	....	....	....	5,152
Tobacco, cigars	....	....	....	....	58,512
Valonia	....	....	....	....	2,201
Broadcloth, clothes	....	11,500	8,466	2,760	242,992
Fez	....	....	....	....	14,352
Carpets	1,031	....	....	....	26,922
Calico	8,372	884	....	....	1,000,354
Empty sacks and canvas	....	6,624	....	....	47,219
Silk cloth and velvet	13,800	....	....	....	52,073
Steel	....	678	....	....	5,904
Nails	....	12,107	....	....	14,371
Manufactured copper	....	....	....	....	3,680
Block-tin	....	....	....	....	12,310
Iron	....	21,574	....	....	36,626
Tin	....	348	....	....	967
Sewing-machines	....	....	497	....	11,842
Iron-mongery	....	258	....	....	3,481
Wire	....	....	....	....	6,295
Candles	....	6,712	....	....	8,7[illegible]

4.—*Imports at Trebizond, 1888*—Continued.

Articles.	Italy and Switzerland.	Sweden and Belgium.	Greece.	Roumania and Bulgaria.	Value.
Bricks, tiles, and cement	$92				$2,375
Vegetable dyes, indigo, etc					6,743
Drugs					16,104
Mirrors, glass, and porcelain	295	$6,099			20,236
Stationery, books	1,104	1,031	$368		29,654
Paint and oil	663				9,625
Soap					9,444
Ink, alum, starch, etc	184				14,154
Jewelry and watches					5,704
Rope		442		$1,987	8,016
Musical instruments, furniture	1,104	184	1,108	1,472	67,134
Cotton thread	4,416	2,816			54,198
Tarpaulin					1,196
Woolen cloth					8,311
Sundries		1,233	663	11,316	61,448
Total in 1888	33,593	76,143	14,673	19,426	2,518,146
Total in 1887	46,193	94,748	5,868	9,781	2,979,687

NAVIGATION.

The following table shows the nationality, number, and tonnage of all steamers and sailing vessels that entered and cleared the port of Trebizond during the year 1888.

Flag.	Entered.				Cleared.			
	Steamers.		Sailing vessels.		Steamers.		Sailing vessels.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russian	104	91,215	37	1,250	103	90,140	37	1,250
English	12	10,791			12	10,791		
Danish	10	11,693			10	11,693		
Austrian	100	91,692			100	92,852		
French	103	148,718			103	148,718		
Greek	50	44,050	4	1,255	50	46,630	4	1,255
Turkish	132	120,733	8,102	44,371	132	120,733	7,997	43,665
Italian	18	12,800			18	12,800		
Total	529	531,692	8,143	46,876	529	534,357	8,038	46,170

PORT OF SAMSOON.

Commerce.—Samsoon is the entrepôt for the export and import trade of the cities of Tocat, Amasia, Sivas, Kaisarieh, and the districts pertaining thereto. The principal exports are tobacco, grain, yellow berries, gum tragacanth, and cocoons. Tables showing the exports and imports are herewith given.* The principal articles imported are cotton goods from England, coffee and sugar from Austria, France, and Belgium, petroleum from Russia, furniture from Austria and France, flour, chemicals, and cement from France.

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* Dispatch No. 65, August 1, 1889.

The nationality of steam and sailing vessels arriving and clearing from the port of Samsoon is shown by the following table:

Navigation at the port of Samsoon.

Flag.	Entered.				Cleared.			
	Steamers.		Sailing vessels.		Steamers.		Sailing vessels.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russian	108	94,381	6	307	109	95,115	6	307
English	6	5,615			6	5,615		
Austrian	102	93,446			101	92,130		
French	101	146,207			103	148,654		
Greek	53	46,452	12	3,714	54	47,380	12	3,714
Turkish	154	129,838	1,117	8,563	154	129,838	1,112	8,236
Italian	14	11,186			14	11,186		
Total	538	527,125	1,135	12,584	541	529,918	1,130	12,257

The number of passengers arriving and departing at Samsoon by steamer in 1888 was 16,528.

The city of Samsoon has a population of about 11,000, of whom 3,000 are Mohammedans, 5,000 Greeks, and 2,000 Armenians.

Imports at Samsoon, Turkey, 1888.

Articles.	From Germany.		From England.		From Austria.		From Belgium.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Steel					135,575	$5,916		
Matches					124,278	2,711		
Candles							53,823	$7,339
Cochineal			726	$198				
Copper, laminated			180,246	39,326				
Tin			54,530	12,395				
Iron in bars			3,209,580	58,356			184,558	3,355
Machinery	9,900	$1,800	12,971	2,360	60,500	11,000	23,320	4,240
Clothing					12,837	11,670		
Paper					355,939	64,715		
Cotton goods	34,760	18,960	2,202,030	1,204,108	99,880	54,480	44,440	24,240
Woolen goods			16,170	26,460	46,640	76,320	36,300	79,400
Pointes de Paris							567,424	16,217
Pepper			1,584	259				
Chemicals			36,696	4,002	18,286	1,995		
Hardware	95,480	26,040	231,836	63,228	194,194	53,085	8,228	2,244
Sacking			42,680	2,716	22,660	1,442		
Wines and liquors					174,284	7,922		
Sugar					1,536,986	68,663		
Yarn			605,451	98,073	63,240	10,512	78,452	12,837
Glass and crockery			197,758	8,629	238,898	10,425	244,739	10,678
Packing cloth			200,200	10,820				
Miscellaneous	117,700	16,050	115,467	15,745	179,300	24,450	108,860	14,844
Total	257,840	62,850	7,107,915	1,544,675	3,263,497	406,515	1,350,244	175,394
Total in 1887	303,600	122,080	6,187,308	1,856,043	3,884,617	423,778	728,332	100,550
Gain			920,607				621,912	74,844
Loss	45,760	59,230		311,368	621,120	17,273		

Imports at Samsoon, Turkey, 1888—Continued.

Articles.	From Egypt.		From France.		From Greece.		From Russia.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Candles			13,057	$1,780				
Coffee			400,778	72,868				
Cement			162,778	740				
Cochineal			6,160	1,680				
Tin			7,898	1,785				
Flour			528,825	10,576			219,549	$4,390
Dried fruits	165,660	$6,777			11,308	$462		
Shot			24,877	1,243				
Olive-oil					3,586	294		
Paper			5,775	1,050				
Cotton goods							23,412	12,770
Woolen goods			2,739	4,482				
Hides and leather			69,357	22,068	5,588	914		
Petroleum							3,780,286	48,112
Pointes de Paris			24,413	710				
Pepper			34,930	5,724				
Chemicals			38,678	4,219				
Hardware			17,358	4,735				
Sacking			1,100	910	2,200	140	36,080	2,296
Soap			2,200	140	17,303	864		
Wines and liquors			72,630	3,300				
Sugar			849,618	38,619				
Olives					12,760	424		
Grain							368,720	6,704
Corn							1,620,410	14,730
Miscellaneous	41,668	5,390	34,888	3,945			40,539	5,528
Total	207,328	12,167	2,303,299	181,534	52,745	3,098	6,088,996	94,530
Total in 1887	9,900	1,512	1,392,710	178,406	84,480	7,988	1,339,470	35,020
Gain	197,428	10,655	910,589	3,128			4,749,526	59,510
Loss					31,745	4,890		

Articles.	From other ports of Turkey.		Total.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*	
Steel			135,575	$5,916
Matches			124,278	2,711
Candles			66,880	9,119
Coffee			400,778	72,868
Cement			162,778	740
Cochineal			6,886	1,878
Copper, laminated			180,246	39,326
Tin			62,026	14,180
Iron in bars			3,394,138	61,711
Machinery			111,971	20,360
Flour	832,821	$16,659	1,581,195	31,625
Dried fruits	284,180	11,624	461,148	18,863
Shot			24,877	1,243
Clothing			12,837	11,070
Olive-oil	265,610	21,730	269,196	22,024
Paper			361,714	65,765
Cotton goods			2,404,522	1,311,558
Woolen goods			101,849	186,663

Imports at Samsoon, Turkey, 1888—Continued.

Articles.	From other ports of Turkey.		Total.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*	
Wood (lumber)	660,000	$15,000	660,000	$15,000
Hides and leather	32,340	5,292	107,285	28,274
Petroleum			3,780,286	48,112
Pointes de Paris			591,837	16,927
Pepper			36,514	5,983
Chemicals			93,660	51,216
Hardware			547,096	149,332
Sacking			104,720	7,504
Soap	695,854	34,796	715,357	35,800
Wines and liquors	274,975	12,496	521,899	23,718
Salt	5,236,000	42,840	5,236,000	42,840
Sugar			2,386,604	107,283
Tobacco, leaf	892,672	40,576	892,672	40,576
Yarn			747,146	121,420
Glass and crockery			681,395	29,732
Packing-cloth			200,200	10,820
Olives	11,330	412	24,090	836
Grain	147,400	2,680	416,120	9,384
Corn	24,640	224	1,645,050	14,954
Miscellaneous	431,976	47,112	1,117,610	133,064
Total	9,789,728	251,441	29,599,582	2,762,367
Total in 1887	8,945,220	197,372	22,875,637	2,922,749
Gain	844,508	54,072	6,723,945	
Loss				160,382

Exports from the port of Samsoon, 1888.

Articles.	To Germany.		To England.		To Austria.		To Belgium.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Oats					2,110,163	$16,305		
Wheat			242,000	$3,300	202,180	2,757		
Hemp					2,200	100		
Fruits					3,300	90		
Gum tragacanth	37,400	$13,600	110,125	40,041				
Yellow berries	188,760	24,024	654,297	83,272	45,236	5,768		
Poppy seed			1,099,846	26,000				
Wool			80,740	6,606	102,674	8,406		
Corn			328,900	2,691				
Opium	18,040	60,352	174,499	583,648				
Goat-skins			698,750	136,568				
Tobacco, leaf	383,158	18,106	131,397	9,540	867,699	146,716	11,000	$500
Valonia			231,000	5,460				
Copper ore	11,000	750	679,696	46,335				
Cherry stones					8,866	574		
Miscellaneous	15,435	8,400			53,460	5,832		
Total	653,793	118,512	4,431,250	943,461	3,395,778	186,548	11,000	500
Total in 1887	1,113,717	171,137	1,962,457	405,799	3,608,088	299,227	212,300	9,000
Gain			2,468,793	537,662				
Loss	459,924	52,625			212,310	112,679	201,300	8,500

Exports from the port of Samsoon, 1888—Continued.

Articles.	To Egypt.		To France.		To Greece.		To Holland.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Oats			2,601,148	$23,646	143,440	$1,304		
Bitter almonds			60,724	3,312				
Wheat			7,580,650	103,372	2,526,827	34,458		
Hemp			41,096	1,868				
Yellow wax					2,875	392		
Cocoons			1,610	1,346				
Flour					1,980	39		
Fruit	39,776	$1,086	3,300	90	13,200	360		
Gum tragacanth			11,935	4,340				
Yellow berries			200,745	25,564				
Linseed			51,315	838				
Hemp seed			9,900	144				
Poppy seed			1,876,934	44,361				
Lath	15,400	980	59,466	3,794				
Beans					32,890	480		
Wool			305,765	25,002				
Walnut-wood			191,967	17,451				
Corn			249,304	2,039	631,202	5,165		
Kid-skins			490,758	44,614				
Sheep-skins			32,696	1,776				
Bran			232,760	1,269				
Tobacco, leaf	456,033	70,628	913,000	83,000			446,025	$20,273
Carpets			528	480				
Eggs			26,158	1,652				
Hare-skins			24,310	11,050				
Copper ore			3,223	225				
Barley			23,320	169				
Cherry stones	192,803	12,264	1,410	95				
Miscellaneous			213,369	23,256	62,735	6,840		
Total	704,012	84,958	15,207,421	424,753	3,415,149	49,038	446,025	20,273
Total in 1887	514,382	58,338	21,490,902	682,622	2,692,525	36,995	356,917	15,371
Gain	189,630	26,620			722,624	12,343	89,108	4,902
Loss			6,283,481	257,869				

Articles.	To Italy.		To Russia.		To other ports of Turkey.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Oats	311,740	$2,834			279,279	$2,502	5,445,770	$46,591
Bitter almonds							60,724	3,312
Wheat	2,537,480	34,602			1,644,726	22,428	14,738,263	200,917
Hemp			880	$40	12,012	546	56,188	2,534
Yellow wax					3,146	423	6,021	815
Cocoons					5,508	4,607	7,118	5,953
Flour					1,284,679	25,683	1,286,659	25,722
Fruits					297,587	8,112	357,163	9,738
Gum tragacanth							159,460	57,665
Yellow berries							1,089,038	138,628
Linseed							51,315	838
Hemp seed							9,900	144
Poppy seed							2,976,720	70,361
Lath							74,866	4,774
Beans					566,759	8,243	599,649	8,723

Exports from the port of Samsoon, 1888—Continued.

Articles.	To Italy.		To Russia.		To other ports of Turkey.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*		*Pounds.*	
Wool					79,703	$6,534	568,912	$46,548
Walnut-wood							191,967	17,451
Corn					599,506	4,905	1,808,912	14,800
Opium							192,539	644,000
Kid-skins			3,665	$333	102,964	9,360	597,389	54,307
Ox-hides					43,659	3,184	43,659	3,184
Sheep-skins					10,582	576	43,278	2,352
Goat-skins							698,750	136,568
Dwarf peas					164,835	2,247	164,835	2,247
Silk					2,398	8,728	2,398	8,728
Bran							232,760	1,269
Tobacco, leaf			153,516	41,868	2,668,978	242,634	6,030,806	633,265
Carpets					8,195	7,450	8,723	7,930
Valonia							231,000	5,460
Smoked meats					345,400	36,110	345,400	36,110
Eggs					56,936	3,612	83,094	5,262
Hare-skins							24,310	11,050
Copper ore	40,370	$2,760			2,591	180	736,880	50,250
Barley					188,766	1,372	212,086	1,541
Cherry stones							203,079	12,933
Miscellaneous			9,735	1,057	1,325,636	144,600	1,680,370	183,265
Total	2,889,590	40,196	167,796	43,299	9,693,345	544,034	41,015,659	2,455,575
Total in 1887	3,548,270	41,005	255,926	54,159	19,053,645	745,214	54,809,180	2,518,568
Gain								
Loss	658,680	809	88,130	10,860	9,359,800	201,180	13,793,471	62,993

PORT OF KERASONDE.

The port to the west of Trebizond, between that city and Samsoon, is Kerasonde. It has a population of about 8,000. Its harbor is inferior. The principal production of the district is hazel-nuts, of which some 2,500,000 kilograms are annually exported. The exports consist almost entirely of these nuts, together with small quantities of beans, skins, and fish-oil, and ore from the lead mines at Lidjessy to the amount of 1,298,000 kilograms.

The exportations by the several lines of steamers, exclusive of ore, were as follows:

Exports from Kerasonde, 1888.

Line.	Number of packages.	Kilograms.
Russian	25,671	2,085,340
French (Messagerie)	10,400	850,130
Austrian	20,718	1,728,230
Turkish	4,013	328,355
Papayani Company	14,758	2,512,350
English	1,700	137,000
Sailing vessels	33,554	2,804,333
Total	110,814	*10,445,744

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*Total value, $850,000.

The imports at Kerasonde for the year 1888 were 81,268 packages, amounting to 3,377,000 kilograms, of the value of about $1,012,000, distributed as follows:

Imports at Kerasonde, 1888.

Articles.	Quantity.	Articles.	Quantity.
Cloth ....kilograms...	369,826	Lime........kilograms...	64,550
Iron-mongery ....do......	201,955	Spirits........do......	78,162
Colonials........do......	315,513	Pottery........do......	55,990
Wheat........do......	288,896	Petroleum........do......	356,663
Sacks (for ore) ....do......	82,660	Lumber ....pieces...	27,715
Hides and skins........do......	101,996	Melons ....do......	9,700
Tobacco ....do......	54,050	Miscellaneous........do......	523,081
Bar-iron ....do......	350,052		

The foreign trade at the other ports of the province is unimportant.

H. M. JEWETT,
Consul.

UNITED STATES CONSULATE,
Sivas, October 26, 1889.

AGRICULTURE IN NEW SOUTH WALES AND VICTORIA.

REPORT BY CONSUL GRIFFIN, OF SYDNEY.

Although the average yield of wheat is larger in New South Wales than any other Australian colony, she has never been able to produce a quantity sufficient for home consumption. The average yield is seldom less than 13 bushels per acre, and in some years it has been as high as 19 bushels per acre. In the last harvest, however—that of the present year—it fell to as low as 4.78 bushels for the acre. This was due to the dry season, the drought of 1888 being the severest in the history of the colony. The harvest in all the Australian colonies is over by the 1st of March, and in the northern part of the country earlier than that. The rains in 1887 were abundant, and the result was a good harvest in all of the colonies for 1888.

The total yield of wheat in New South Wales for that year was 5,868,844 bushels, and in Victoria it was 13,328,765 bushels, but the year following the drought it declined to only 1,450,503 bushels in New South Wales, and 8,647,709 bushels in Victoria. The subjoined tables show the area of land under different crops in New South Wales and the produce for each year, from 1877 to 1889.

Area of land under different crops and produce per acre in New South Wales.

Year ended March 31—	Wheat.	Maize.	Barley.	Oats.	Rye.	Millet.	Potatoes.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
1877	145,608	116,364	5,662	21,828	1,277	242	14,171
1878	176,686	105,510	5,055	18,580	1,168	239	13,862
1879	233,252	130,582	6,152	22,129	1,302	254	16,724
1880	233,368	135,034	6,130	23,883	1,016	86	19,271
1881	253,137	127,196	8,056	17,922	1,095	211	19,095
1882	221,887	117,478	6,426	16,347	889	200	15,943
1883	247,361	118,180	6,473	24,817	1,031	200	14,462
1884	289,757	123,634	5,081	17,810	1,140	284	14,953
1885	275,249	115,600	7,035	19,472	1,110	118	12,417
1886	264,867	132,709	5,297	14,117	666	266	15,166
1887	337,730	146,957	6,079	23,947	1,095	325	17,322
1888	389,390	171,662	4,402	19,393	1,091	200	20,915
1889	304,803	166,101	3,318	7,984	512	473	15,419

Year ended March 31—	Tobacco.	Sugar-cane.		Hay.			
		Productive.	Unproductive.	Wheat.	Barley.	Oats.	Lucern and grass.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
1877	333	3,524	3,231	17,115	2,041	77,212	15,578
1878	399	3,331	3,735	29,640	1,875	79,333	14,930
1879	835	2,949	4,489	22,888	1,414	61,684	18,110
1880	592	3,675	4,102	25,281	1,838	67,877	17,418
1881	1,791	4,465	6,506	41,137	2,262	68,758	18,996
1882	1,625	4,983	7,184	39,428	2,089	86,088	19,205
1883	1,815	6,362	7,176	42,592	2,499	112,477	21,999
1884	1,785	7,583	7,401	49,348	2,159	107,451	19,545
1885	1,046	6,997	10,520	86,584	2,174	121,922	15,966
1886	1,603	9,583	6,835	105,122	2,314	96,946	16,504
1887	1,203	5,915	9,202	74,070	2,095	126,488	20,817
1888	2,371	8,380	6,907	60,340	1,990	86,451	21,543
1889	4,833	4,997	10,284	102,838	3,416	85,439	17,838

Year ended March 31—	Sown grasses, oats, barley, sorghum, etc., for green food for cattle.	Vines.	Gardens and Orchards.	Orangeries.	All other in crop.	Total number of acres in crop.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
1877	61,516	4,457	20,453	....	3,228	513,840
1878	65,072	4,183	19,900	....	3,058	546,556
1879	60,249	4,237	18,017	4,287	4,088	613,642
1880	64,643	4,266	18,130	5,106	3,925	635,641
1881	102,540	4,800	18,626	5,939	7,805	710,337
1882	75,825	4,027	15,541	6,301	3,792	645,068
1883	92,606	4,448	17,060	6,716	5,308	733,582
1884	107,993	4,378	17,455	7,268	4,057	789,082
1885	140,528	4,584	20,416	6,911	3,368	852,017
1886	156,710	5,247	19,245	7,733	8,163	868,093
1887	165,820	5,840	18,605	7,920	6,234	977,664
1888	212,721	6,745	20,677	8,875	4,252	1,048,305
1889	228,808	7,072	20,827	10,851	3,490	999,298

Product raised during each year for the period 1877–'89 in New South Wales.

Year.*	Wheat.	Maize.	Barley.	Oats.	Rye.	Millet.	Potatoes.	Tobacco.	Sugar-cane.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Tons.*	*Cwts.*	*Tons.*
1877	2,391,979	3,879,537	134,158	461,916	22,277	4,400	42,938	2,440	99,430
1878	2,445,507	3,551,806	99,485	358,853	19,184	3,877	34,957	3,049	99,978
1879	3,439,326	4,420,580	132,072	447,912	22,563	5,023	53,590	7,932	104,192
1880	3,613,266	4,761,856	131,541	516,937	16,873	1,855	62,227	6,221	126,119
1881	3,717,355	4,518,897	163,395	356,121	16,814	5,680	52,111	19,469	121,616
1882	3,405,966	4,330,956	135,218	356,566	14,677	2,519	44,323	18,311	128,752
1883	4,042,395	4,057,635	133,050	617,465	17,380	3,066	43,460	17,540	169,192
1884	4,345,437	4,538,604	106,496	376,635	16,274	4,078	36,976	20,006	204,547
1885	4,271,394	3,389,505	148,869	425,920	16,739	1,843	31,334	9,914	105,323
1886	2,733,133	4,336,163	85,606	279,107	7,846	6,685	38,695	22,947	239,347
1887	5,868,844	3,825,146	132,949	600,892	17,784	4,749	45,803	13,642	167,959
1888	4,695,849	4,953,125	84,533	394,762	19,167	4,869	61,455	23,465	273,928
1889	1,450,503	4,910,404	36,760	109,931	5,982	6,917	36,839	55,478	110,218

Year.*	Hay.				Vines.			Oranges.
	Wheat.	Barley.	Oats.	Lucern and grass.	Wine.	Brandy.	Fruits for table use.	
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Gallons.*	*Gallons.*	*Tons.*	*Dozens.*
1877	21,297	2,805	98,901	36,657	799,709	2,968	917	....
1878	29,137	2,134	87,660	35,144	708,431	1,481	797	....
1879	31,320	2,258	75,138	63,690	684,733	2,540	1,102	3,398,445
1880	32,943	2,395	84,915	42,510	733,576	4,186	1,017	2,763,811
1881	44,037	2,616	77,811	49,730	602,007	6,628	1,579	3,810,356
1882	42,378	4,328	100,773	51,053	513,688	3,522	1,102	5,164,134
1883	43,997	3,558	140,979	54,387	543,596	1,614	1,440	4,978,829
1884	55,119	2,785	113,899	57,438	589,604	4,162	1,377	8,102,658
1885	87,328	2,870	149,489	40,624	442,612	1,432	1,465	4,097,666
1886	74,606	1,749	72,484	42,532	555,470	3,893	1,695	8,749,256
1887	109,851	4,388	182,921	52,738	601,897	763	1,945	6,376,868
1888	70,392	3,641	96,126	60,438	666,382	3,606	2,276	8,704,677
1889	42,041	1,898	40,753	50,219	805,813	2,601	2,527	19,693,880

*Ended March 31.

I am indebted to Mr. T. A. Coghlan, Government statistician, for the following table showing the area of land under wheat and total yield per acre for each year in New South Wales from 1862 to 1889. It will be seen from this table that the average yield for twenty-eight years was nearly 13 bushels, the figures being 12.88.

Area of land under wheat and total yield per acre in New South Wales from 1862 to 1889 and the average yield for 28 years.

Year ended March 31—	Area of crop.	Yield.	Yield per acre.
	Acres.	*Bushels.*	*Bushels.*
1862	123,468	1,606,034	13.01
1863	108,136	1,054,954	9.75
1864	103,942	808,919	7.78
1865	104,568	1,246,458	11.92
1866	131,653	1,013,863	7.69
1867	175,033	2,226,027	12.72
1868	149,142	1,433,807	9.61
1869	164,206	1,787,085	10 88
1870	189,452	3,200,959	16.89
1871	147,997	999,595	6.75
1872	154,030	2,229,642	14.48
1873	177,551	2,898,463	16.22
1874	169,330	2,273,620	13.43
1875	166,911	2,148,394	12.87
1876	133,609	1,958,640	14.66
1877	145,608	2,391,979	16.43
1878	176,686	2,455,507	13.84
1879	233,252	3,439,326	14.74
1880	233,368	3,613,266	15.48
1881	253,137	3,717,355	14.69
1882	221,887	3,405,966	15.35
1883	247,361	4,042,395	16.35
1884	289,757	4,345,437	15
1885	275,225	4,271,304	15.52
1886	264,867	2,733,133	10.45
1887	337,730	5,868,844	17.37
1888	389,390	4,695,849	12.06
1889	304,803	1,450,503	4.75
Average yield for 28 years	....	....	12.88

The yield of maize for 1889 showed a very slight falling off from that of the previous year, the figures being 4,953,125 bushels for 1888 and 4,910,404 for 1889. Sugar-cane declined during the same period from 273,928 tons to 110,238 tons. The decline in lucerne and grass was from 60,438 tons to 50,219 tons. Wine increased from 666,382 gallons to 805,813 gallons, and tobacco from 23,465 cwts. to 55,406 cwts.

In Victoria, where more attention is paid to agriculture than in New South Wales, there was a decrease in nearly every one of the crops.

The subjoined tables Nos. 1 and 2, for which I am indebted to Mr. H. H. Hayter, C. N. G., the Government statist, of Victoria, show the number of holdings and total area under cultivation and the gross produce of each description of crop in Victoria, with the exception of tobacco, hops, and wine, which, Mr. Hayter states, will be furnished at a later period.

TABLE 1.—*Victorian agricultural returns.*

Description.	Shires.	Cities, towns, and boroughs.	Total.		Increase.	Decrease.
			1888–'89.	1887–'88.		
Number of cultivated holdings	35,751	976	35,727	37,615	...	1,888
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Extent of land under tillage	2,546,481	18,261	2,564,742	2,576,405	...	11,663
Extent of land under each decription of tillage:						
Grain crops—						
Wheat	1,215,424	1,767	1,217,191	1,232,943	...	15,752
Oats	196,151	1,367	195,518	199,036	...	1,518
Barley—						
Malting	62,876	242	63,118	28,737	34,381	...
Other	19,773	592	20,365	12,246	8,119	...
Maize	5,776	13	5,789	6,031	...	242
Rye	1,102	7	1,109	1,069	40	...
Peas and beans	30,686	536	31,222	26,692	4,530	...
Root crop (exclusive of those in market and kitchen gardens—						
Potatoes	41,473	1,601	43,074	48,263	...	5,189
Turnips	374	5	379	303	76	...
Mangel-wurzel	872	25	897	1,191	...	294
Beet	9	...	9	19	...	10
Carrots, parsnips	252	8	260	466	...	206
Onions	1,753	15	1,768	2,437	...	669
Other tillage—						
Hay	405,490	5,842	411,332	441,812	...	30,480
Chicory	148	...	148	249	...	101
Grass and clover seed	1,527	14	1,541	4,638	...	3,097
Green forage	7,139	410	7,549	6,410	1,139	...
Artificial grasses	182,378	2,613	184,991	158,047	26,944	...
Hops	784	...	784	685	99	...
Tobacco	1,686	...	1,686	1,966	...	280
Vines	12,079	420	12,499	11,195	1,304	...
Gardens	10,288	830	11,118	9,997	1,121	...
Orchards	15,848	637	16,485	16,328	157	...
Land in fallow	331,562	1,308	332,870	364,354	...	31,484
Other crops	1,031	9	1,040	1,291	...	251

TABLE 2.—*Victorian agricultural returns.*

Description.	Quantity of produce.					
	Shires.	Cities, towns, and boroughs.	Total.		Increase.	Decrease.
			1888–'89.	1887–'88.		
Grain crops:	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
Wheat	8,625,859	21,850	8,647,709	13,328,765	...	4,681,056
Oats	2,782,456	21,344	2,803,800	4,562,530	...	1,758,730
Barley—						
Malting	714,976	6,444	721,420	601,465	119,955	...
Other	390,459	19,548	410,007	355,011	54,996	...
Maize	266,932	223	267,155	318,551	...	51,396
Rye	10,712	32	10,744	14,900	...	4,156
Peas and beans	354,423	7,301	361,724	732,060	...	370,336

TABLE 2.—*Victorian agricultural returns*—Continued.

Description.	Quantity of produce.					
	Shires.	Cities, towns, and boroughs.	Total.		Increase.	Decrease.
			1888-'89.	1887-'88.		
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
Grass and clover seed	17,216	228	17,444	61,177	....	43,733
Root crops (exclusive of those in market and kitchen gardens):	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Potatoes	126,899	4,250	131,149	198,225	....	67,076
Turnips	4,534	26	4,560	4,102	458	....
Mangel-wurzel	13,666	308	13,974	20,590	....	6,616
Beets	117	....	117	302	....	185
Carrots and parsnips	2,088	45	2,133	4,370	....	2,237
Onions	4,389	41	4,430	11,774	....	7,344
Hay	301,700	6,417	308,117	624,122	....	316,005
Chicory	811	....	811	1,375	....	564

To these returns I append a table (also furnished by Mr. Hayter) showing the area under the four principal crops and their gross and average produce in the colony of Victoria for each year from 1880 to 1889:

Year ended March—	Area under—				Gross produce of—			
	Wheat.	Oats.	Potatoes.	Hay.	Wheat.	Oats.	Potatoes.	Hay.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Bushels.*	*Bushels.*	*Tons.*	*Tons.*
1880	707,188	167,615	41,600	201,451	9,398,858	4,023,271	167,943	292,407
1881	977,285	134,089	45,951	249,656	9,727,369	2,362,425	129,262	300,581
1882	926,729	146,995	39,129	212,150	8,714,377	3,612,111	134,290	238,793
1883	969,362	169,892	34,267	309,382	8,751,454	4,446,027	129,605	327,385
1884	1,104,392	188,161	40,195	302,957	15,570,245	4,717,624	161,088	433,143
1885	1,096,354	187,710	38,763	339,725	10,433,146	4,392,695	161,119	371,046
1886	1,020,082	215,994	42,602	421,036	9,170,538	4,692,303	163,202	442,118
1887	1,052,685	185,765	49,974	445,150	12,100,036	4,256,079	170,661	483,049
1888	1,232,943	199,036	48,263	441,812	13,328,765	4,562,530	198,225	624,122
1889	1,217,191	197,518	43,074	411,332	8,647,709	2,803,800	131,149	308,117

Year ended March—	Average produce per acre of—			
	Wheat.	Oats.	Potatoes.	Hay.
	Bushels.	*Bushels.*	*Tons.*	*Tons.*
1880	13.29	24	4.04	1.45
1881	9.95	17.62	2.81	1.20
1882	9.40	24.57	3.43	1.13
1883	9.03	26.17	3.78	1.06
1884	14.10	25.07	4.01	1.43
1885	9.52	23.40	4.16	1.09
1886	8.99	21.72	3.85	1.05
1887	11.49	22.91	3.41	1.09
1888	10.81	22.92	4.11	1.41
1889	7.10	14.20	3.04	0.75

BREADSTUFFS.

Mr. T. A. Coghlan, Government statistician of New South Wales, furnishes the subjoined table, showing the average yearly import, export, and production of breadstuffs in New South Wales, and deficiency of home production, etc., from 1862 to 1888:

Period of which an average has been taken.	Imports.			
	Flour.	Equivalent in wheat.	Wheat.	Total.
	*Cwts.**	*Bushels.**	*Bushels.**	*Bushels.**
1862–'66	426,757	1,066,892	801,765	1,868,658
1867–'71	362,216	905,540	750,705	1,656,245
1872–'76	404,844	1,012,110	838,388	1,850,498
1877–'81	611,656	1,529,140	545,914	2,075,054
1882–'86	993,857	2,484,645	613,180	3,097,825
1887–'88	1,343,100	3,357,750	908,337	4,266,087

Period of which an average has been taken.	Exports.				Excess of imports over exports.
	Flour.	Equivalent in wheat.	Wheat.	Total.	
	*Cwts.**	*Bushels.**	*Bushels.**	*Bushels.**	*Bushels.**
1862–'66	169,074	422,686	26,156	448,842	1,419,815
1867–'71	118,044	295,110	34,891	330,002	1,326,243
1872–'76	82,967	207,418	95,801	313,219	1,547,279
1877–'81	143,368	358,421	103,755	462,173	1,612,878
1882–'86	259,771	649,427	71,988	721,415	2,376,411
1887–'88	404,121	1,010,302	142,901	1,153,203	3,112,884

Period of which an average has been taken.	Home produce.			Total available for food.	Consumption of wheat per head.	Home produce per head.	Deficiency per head.
	Wheat required for seed.	Wheat crop.	Balance available for food.				
	*Bushels.**	*Bushels.**	*Bushels.**	*Bushels.**	*Bushels.*†	*Bushels.*†	*Bushels.*†
1862–'66	168,702	1,146,046	977,344	2,397,159	6.1	2.5	3.6
1867–'71	216,875	1,949,495	1,732,620	3,058,863	6.5	3.7	2.8
1872–'76	210,945	2,294,711	2,083,766	3,631,045	6.4	3.7	2.7
1877–'81	319,176	3,121,487	2,802,311	4,415,189	6.4	4	2.4
1882–'86	443,170	3,759,657	3,316,487	5,692,898	6.4	3.8	2.6
1887–'88	535,856	5,282,346	4,746,490	7,859,374	7.5	4.5	3
General average for 27 years	......	......	......	......	6.44	3.57	2.87

* Average per annum. † Per annum.

Mr. Coghlan also furnishes the subjoined tables, showing the value of breadstuffs imported and exported from 1887 to 1888, with the excess of imports and the consumption of breadstuffs, percentage of home manufactures, etc., for the period of 1862–'88.

Year.	Total imports.	Total exports.	Excess of imports.
1877	£610,367	£127,921	£482,446
1878	624,842	77,518	547,324
1879	421,152	53,537	367,615
1880	486,374	83,251	403,123
1881	447,093	238,751	208,342
1882	836,074	248,039	588,035
1883	539,164	210,412	348,752
1884	606,122	186,677	419,445
1885	619,862	121,364	498,498
1886	869,657	106,341	763,316
1887	734,220	237,066	497,154
1888	920,220	215,992	704,228

Period.	Total consumption of flour in equivalent of wheat.	Flour imported for home consumption, in equivalent of wheat.	Flour manufactured in the colony, in equivalent of wheat.	Percentage of flour manufactured in colony to whole consumption.
	Bushels.	*Bushels.*	*Bushels.*	
1862-'66	2,422,927	644,206	1,788,721	73.5
1867-'71	3,069,285	610,429	2,458,856	80.1
1872-'76	3,648,602	804,692	2,846,910	77.9
1877-'81	4,473,852	1,170,719	3,303,133	73.8
1882-'86	5,812,836	1,835,218	3,977,618	68.5
1887-'88	7,940,781	2,347,448	5,593,333	70.4

Mr. Coghlan estimates the consumption of wheat per head in New South Wales at 6.7 bushels for a term of years, a quantity considerably greater than that in Victoria and in the United Kingdom, the former being 5.62 bushels and the latter 4.50 bushels. While it may not be a matter of surprise that New South Wales should consume more wheat per head than Great Britain, where the people are naturally more careful and economical than those of a younger community, the case is altogether different with Victoria, which is, in fact, a younger country than New South Wales. One of the reasons given for this anomaly is that the number of males in New South Wales is about twenty thousand greater than in Victoria. Another reason is that the former colony has a greater proportion of people in the prime of life than the latter. Another remarkable fact which may apply in the present instance is that the largest wheat-producing countries are not, as a rule, the largest wheat consumers. Russia, for instance, with her vast wheat product, consumes only 2 bushels per head of population; Germany only 2½ bushels. On the other hand, in many countries where the wheat crop is small, as in France, the consumption is as heavy as 7½ bushels per head.

PRICE OF WHEAT.

During the present year the prices of wheat were considerably less in New South Wales than in Victoria, for the reason that there is a customs duty of 2 shillings (48 cents) for every hundred-weight imported into the latter colony. The highest price paid in New South Wales for the best Australian wheat was 5*s.* 6*d.* ($1.34) per bushel, while in Victoria it reached as high as 5*s.* 8*d.* ($1.58).

There was very little American wheat and flour imported into New South Wales during 1888, on account of the good harvest of that year, but the failure of the crop of 1889 created a demand for American breadstuffs. From January 1, 1889, to this date (end of October) the total quantity of flour imported into Sydney from California was 289,503 sacks, and of wheat 2,853 tons.

It is anticipated that the wheat imports will be increased between this date and the end of the year by 300 tons, and the flour imports by 20,000 sacks.

AGRICULTURAL MACHINERY AND IMPLEMENTS.

The value of agricultural machinery and implements in New South Wales is estimated at £1,750,000 ($8,516,375), or about £1 15*s.* ($8.51) per acre of land cultivated. The subjoined list of the number and kinds of agricultural implements is furnished by the Government statistician of New South Wales.

Agricultural implements.

Description.	Number.	Description.	Number.
Bone-mills	132	Sheep-washing machines	52
Carts	52,624	Stills	68
Chaff cutters	10,528	Turnip cutters	148
Cheese presses	1,289	Plows	41,961
Cheese-making machines	302	Winnowing-machines	3,211
Corn crushers	2,619	Strippers	2,680
Corn shellers	7,375	Stump extractors	368
Harrows	30,391	Wool presses	2,364
Hay presses	1,133	Wool washing	185
Hay-making machines	177	Steam-engines	985
Hay rakes (horse)	3,253	Reapers	1,503
Threshing-machines	726	Reapers and binders	1,112
Wine presses	384	Hay-cutting machines	449
Mowing-machines	4,283	Seed sowers and drills	310

American mowers and reapers are preferred to those of English manufacture, but it is said that the latter are sold at a lower price and are much stronger and are consequently less liable to get out of order. There can be no doubt but that the English and colonial machines are of heavier weight than the American, and possibly can stand rougher usage, but they are clumsy and very difficult to handle; besides, their additional weight is no indication of greater strength or durability. The American machines are unquestionably of lighter and more graceful construction than the English, and require to be handled in a different way. A large dealer in agricultural implements states that the colonial farmer, being unaccustomed to American machines and implements, treats them precisely in the same way as the English ones, and that the former will not stand such rough usage as the latter, but those who understand how to use them are enabled to do much better and more work with them than with the English machines.

Threshing-machines of English make are popular here, for the reason that the grain does not have to be run through a fanning-mill; but they are twice as heavy as the American ones, and will not do the work so easily and rapidly.

The Australian farmer, as a rule, prefers plows with iron handles and beams. The English plows make a very deep furrow, and when deep furrowing is required, as is usually the case in the dry, stiff soil in Australia, light plows that only skin the surface are altogether useless. American manufacturers desirous of introducing their plows here should endeavor to have them made to suit the views of the farmers who have to use them. In regard to American cultivators and harrows, there is little or no objection to them, especially for the cultivation of corn or maize. Corn is likely to become the principal grain crop of New South Wales. At the last harvest, which was one of the worst in the colony, the yield of maize declined very little from that of the previous year; moreover, the farmers are finding out that their corn has been injured by deep cultivation at certain stages of growth with the English harrows. Corn is essentially a surface feeder, and if the ground is at all moist the roots mostly gather their nourishment near the surface. If the surface soil becomes dry, they instinctively turn downwards and keep their points in moisture if possible. The late starting upper roots are no exception to this rule, but will head downward when overtaken by drought. It is the newer growths of both primary and secondary which are the most active in absorbing plant food. New growths take mainly in the presence of water. The primary roots are the leading roots of the plant, and extend some feet in length. The secondary roots branch from, and cluster round, the primary roots. If the primary root is broken, the secondary root strives to make good the damage by sending out new rootlets at the end of the break, and in some instances they grow to a considerable length; but the loss of a broken primary root can never be wholly repaired, consequently the plant is restricted more or less to its feeding surface. The object of the cultivator is then not to break these primary roots, but to conduct his operations in such a manner as to least disturb their growing and expanding. To avoid this, thorough cultivation with the harrow should take place in the early stages of the growth of the plant. Broad, shovel-nosed cultivators should be avoided in all stages of the growth of the plants. Say that cultivation is from 4 to 5 inches deep, many of the primary roots of the plant must be torn, broken, and damaged, with a corresponding check to the growth of the plant and a restriction of its feeding space. The heavier the cultivator and the more numerous and wider the teeth the greater the damage will be. Light cultivators, and shallow but constant stirring of the surface are considered best. Of course, the condition and quality of the soil must be taken into consideration. In a well-conditioned, dry, sandy soil, or light loam, the roots will be deeper, and cultivation may be deeper than on a heavy bottom land or clay soil, where the roots will be near the surface.

In Victoria and New Zealand American mowing-machines are always in demand, but in New South Wales and South Australia the farmers prefer strippers to mowers. Indeed, it is said that mowing-machines are not used at all in South Australia. The grain crop being light and scattered, it is found to be more economical to strip it instead of mowing it.

At present there seems to be a better demand for mowing-machines and farming implements in Victoria than in New South Wales; in fact, as I have said previously, more attention is paid to agriculture there than in this colony. The Victorian Government not long since ordered a number of agricultural machines and implements from the United States, which, upon their arrival, were exhibited at various agricultural shows in the colony, and were subsequently sent to the agricultural college at Cashel. The articles consisted of one Triumph steam generator, Walker's improved wood and iron track carrier, Thompson's wagon loader, superior broadcast seed sower and cultivator, wooden harrows with appliance for raising harrows by pulling a string, buck scraper, lyster and drill, the Yankee garden harness, one drill wheel hoe cultivator and plow, plant hand fertilizer and drill, double wheel hoe and plow cultivator, hollow steel standard horse-hoe cultivator with wheel, hollow steel standard plain horse-cultivator.

Mr. J. R. Thompson, the principal of the college, was instructed to thoroughly test and report upon each of these articles. A copy of this report has been furnished me by Mr. D. Martin, the Victorian secretary for agriculture, and I observe that Mr. Thompson commends the steam generator, especially for steaming food for stock, such as chaff, small wheat, etc. He says "it thoroughly cooks the food without wasting any." The report states the "wood and iron track carrier" and the "wagon loader" were valuable; the broadcast seed sower was too light for the stiff Australian soil; the buck scraper was praised very highly, and particularly for leveling land intended for irrigation. Mr. Thompson describes it as cheap, strong, and well made, and worthy a place on farms requiring its use. The lyster and drill was found to be very valuable for sowing maize, the double mold boards turned the soil right and left, the subsoil attachment loosened the soil at the bottom of the furrows, the seed being dropped in the fresh moist earth and immediately covered up by the wings of the subsoiler. A concave followed pressing the earth down upon the seed. Maize put in with this machine in a dry season grew 6 feet high. The garden harness gave every satisfaction, it being able to go close to trees and vines without injury to them. A chain is used between the horses. Heavy iron plates bent the shape of the horse's back are suspended with straps. Mr. Thompson found the fertilizers, drills, and hoes too light for the soil, though he praised their design and good workmanship.

The value of farm machinery in Victoria is estimated by Mr. Hayter, the Government statist, at £2,799,060.

The Sydney Town and Country Journal has always favored the introduction of American agricultural machinery into Australia, and in a recent article recommended the adoption of steam-harvesters now in use in California. The Journal states in its issue of the 12th instant that "the engines most needed here are mounted on two wheels and kept balanced on the steering wheels, which gives the great advantage of lightness and ability to turn in their own length. The engines will drive plows as well as reapers and threshers, and by their operation wheat may be sown and harvested at a cost of from 6 shillings ($1.46) to 11 shillings ($2.68) per acre, according to circumstances." The use of these machines gives the Californian farmer an enormous advantage over the Australian farmer, and enables him to cultivate his thousands of acres where the Australian only cultivates his hundreds, with the result that the agricultural resources of California are being rapidly developed by a prosperous and contented community, while the more superior and extensive agricultural resources of this colony are undeveloped, and discontent and depression prevail. What has been accomplished in California can be accomplished here. With the view of giving all available information on this important matter the Town and Country Journal illustrated one of the latest improvements in traction engines and combined harvesters made in California. The growth of grain in Australia has not sufficiently advanced to admit of its being sold by grades instead of samples. Grain elevators are unknown here, and it is hardly probable that they will be introduced for many years to come, at least not until large tracts of land are set apart for growing a particular kind of wheat.

PROSPECT OF THE COMING HARVEST.

The most favorable accounts have been received of the condition of the coming crop in various parts of Australia, and especially in Victoria and New South Wales. Wheat and other grain are far advanced, and their superb condition indicates that the harvest will be one of the most abundant ever garnered in Australia. The area under wheat this season in New South Wales is about 420,000 acres. In the event of there being no tempestuous weather the yield will average more than 20 bushels to the acre, and in some districts from 40 to 50 bushels per acre.

On the rich lands of the New England district the yield for 1887 was fully 40 bushels to the acre, and the crop is now more promising than at the corresponding period for 1887, nor is this prospect confined to any particular district, but extends from Tenterfield in the north to Albury in the south, a distance of about 700 miles. Rust has appeared in some localities, but not to any great extent, and is usually confined to the coast lands, where for some years wheat has not been a profitable crop.

This was not always the case, for in the early history of the colony the coast lands produced the best wheat until rust was introduced. Rust, however, is unknown on the western plains and on the high table-lands, and there is no reason, as far as I am able to judge, why the cultivation of wheat can not be extended almost without limit.

The agricultural authorities here state that fully 25,000,000 acres, or about one fourth of the total area of New South Wales, is capable of growing wheat. The kind of wheat best suited to New South Wales, is what is known as the Purple Straw. This wheat carries a strong stem and is of a purple or reddish color, as its name implies, besides, it is not easily beaten down, and is said to stand the drought better than any other variety. The grain is small, heavy, and of remarkably fine milling properties. Many believe that this wheat originated in South Australia, whilst others claim to be able to trace its origin to India.

The Llamas, another excellent variety, is also well adapted to this climate. The stem and grain of the Llámas bear a strong resemblance to the wheat generally grown in the northwestern States of America. There are several other varieties which do fairly well here, but, as I have said previously, the best results have been obtained from the Purple Straw.

The oats, barley, rye, and maize crops are all in fine condition. On the coast lands maize sometimes yields as much as 120 bushels to the acre.

Rye, which is nearly always a fine crop in New South Wales, is looking extremely well. On the model farm of Mr. Alfred Kennett, near Camden, on the Richmond River, there is a yield of rye 7 feet in height, and is more luxuriant than any I have hitherto seen. The straw is strong and firm and the ears and grain well developed. The barley on the same farm is over 6 feet high; in fact, all the crops along the Richmond and Clarence rivers are in fine condition, and this is especially true in regard to sugar-cane and various kinds of sorghum. The Planters' Friend amber cane and millet are expected to produce from 50 to 60 tons per acre.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, October 30, 1889.

Railroads and electric lights in Siam.—Under date of October 2, 1889, Consul-General Child, of Bangkok, reports that a railroad has been incorporated and will be built at once, exclusively by Siamese capital, from Bangkok via the town of Paknam, at the mouth of the Menam, to Patriew, a distance of about 30 miles. The road will be narrow gauge, and pass through rice fields almost the entire route. The capital to be invested will be about 800,000 ticals (about $400,000 American). It will be the first railroad in Siam, one of an experimental character. At present a corps of engineers are engaged in running a line north toward Burmah, but it is impossible to tell whether the field notes will be used for some years, if ever.

A company for the purpose of lighting the city of Bangkok with electric light has been organized, the plant ordered, and it will be put in operation early next year.

THE SUGAR-BEET INDUSTRY OF BOHEMIA.

REPORT BY COMMERCIAL AGENT HAWES, OF REICHENBERG.

INTRODUCTORY.

During the year ended June 30, 1888, the United States imported sugar, including molasses and confectionery, amounting to $79,760,891. So little sugar is grown in the United States, indeed, that it has been proposed to remove the duty on this article upon the ground that we have no sugar industry to protect.

The Department of Agriculture has for years, with the aid of Congress, been endeavoring to establish a substitute for sugar-cane by the cultivation of sorghum. While the latter experiments seem to show that sorghum can be successfully cultivated and manufactured into sugar in the United States, I desire to call attention to a subject that has passed beyond the stage of experimentation in Europe, and which, indeed, meets the indorsement of so practical and successful a manufacturer as the well-known Claus Spreckels. According to this authority, sugar-beet culture can be successful and profitable just as much on the Atlantic slope as on the Pacific, in the Mississippi valley as in California.

Why should we pay out $80,000,000 yearly for an article that we can easily produce ourselves?

Clearly, our efforts should be directed to the development and protection of such an industry until we may be able to save the enormous sum now paid to foreign countries, if not eventually to supply those countries themselves with sugar.

It has been my aim to make the following report so complete that the practical farmer, as well as the theorist, may become interested in the subject and find all the details necessary for his information. I have also described briefly the process of manufacture.

With this preface I will pass directly to my subject, and first call attention to the

CULTIVATION OF THE SUGAR-BEET.

The sugar-beet (*Beta vulgaris saccharifera*) is a variety of the class *Beta vulgaris linnæi*, and belongs to the family *Chenopodiaceæ*. It has become biennial by cultivation, and there are many varieties.

The conditions required of a good sugar-beet are—

(1) Regular shape (cone, pear, or olive shape). Many side roots or prongs are disadvantageous, because they make cleaning more difficult and increase the waste. The leaves should be thick and should be of the characteristic shape and color, and those which lie flat are to be preferred as protecting the beet against frost.

(2) A medium size, say, 1 to 2 pounds. Small beets make a small crop, while large beets contain comparatively little sugar. The length should not

be more than 35 centimeters. The crop should not be less than 30,000 kilograms to the hectare (2½ acres).

(3) Rich in sugar—from 9 to 16 per cent.

(4) A white, compact, brittle substance. Such beets are more resistant to destruction by storage. A small head not protruding from the ground, as this head must be cut off, containing, as it does, very little sugar.

It is very important to select the proper variety for a given district, because the different economical conditions of climate and soil require different varieties, if the largest possible crop is to be harvested. It is, therefore, quite necessary for every farmer to experiment with different varieties.

VARIETIES OF BEET.

The varieties which fulfill the above conditions are—

(1) *The white beet of Silesia.*—This beet was formerly the best sugar-beet; to-day it is only used where large quantities are required, as it does not contain as much sugar as some other varieties. This beet requires an excellent soil.

(2) *The Quedlinburger.*—This beet is distinguished as ripening fourteen days earlier than most other beets, so that in localities where an early frost is the rule this beet is to be preferred.

(3) *The Imperial.*—This beet is excellent for deep, good soils. It has now three offsprings:

(*a*) The white Imperial, by Knauer.

(*b*) The small Wanzlebner, which has a high percentage of sugar.

(*c*) Brothers Dippe small Wanzlebner.

(4) *Knauer Electoral.*—This is good on soils otherwise unfit for beet cultivation, as hilly lands and poor alluvial soils.

(5) *Knauer Mangold.*—This beet at present contains the highest percentage of sugar.

(6) *Vilmorin.*—This beet is very valuable, as it produces a sufficient percentage of sugar on low lands rich in nitrogen and in soils where all other kinds are valueless.

The offsprings of this variety are—

(*a*) Vilmorin blanche ameliorée.

(*b*) Vilmorin rose partial.

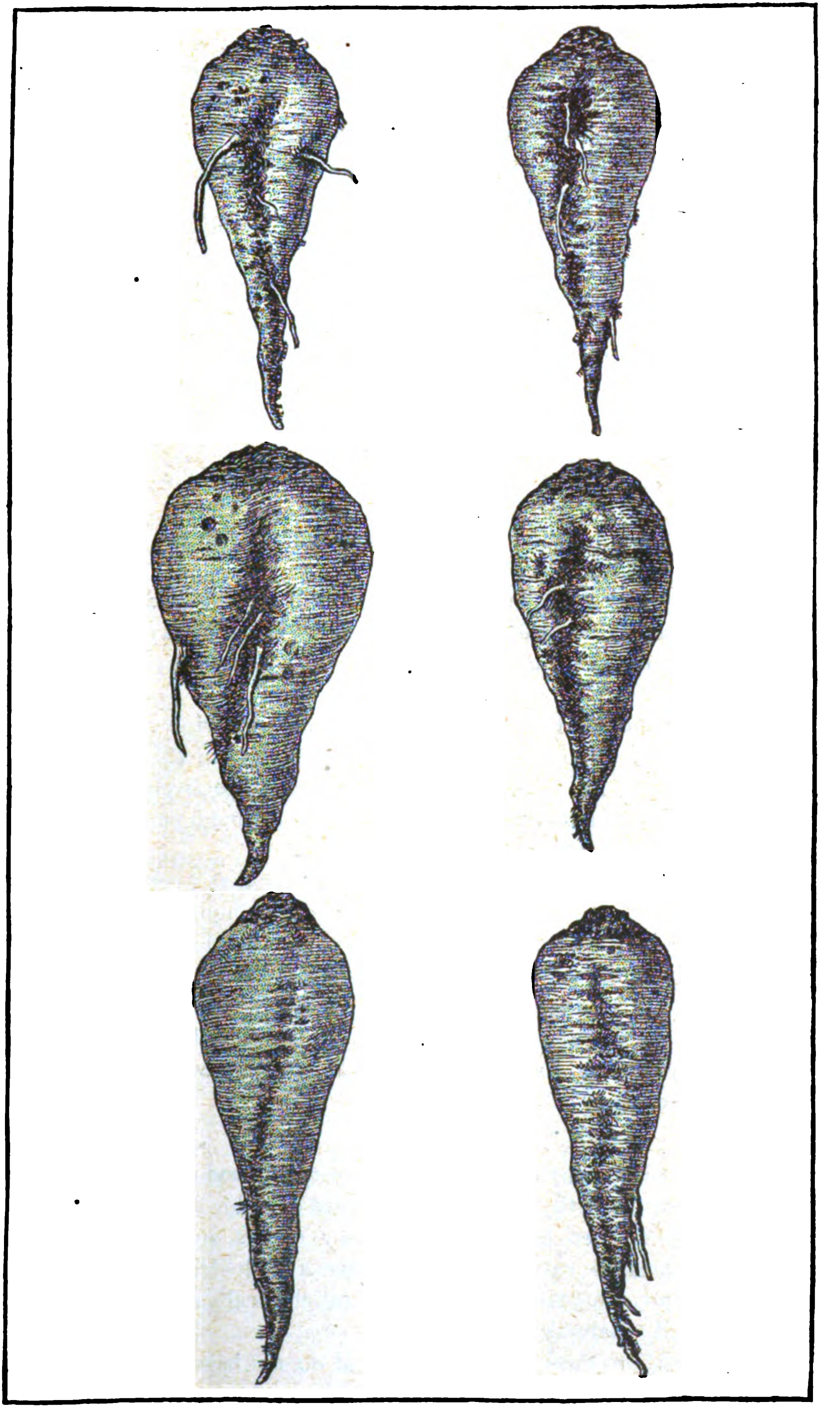
(*c*) Vilmorin blanche collet rose.

(*d*) Vilmorin collet verte race braberut.

(*e*) Brothers Dippe white élite—very rich in sugar.

(*f*) Besteborn's Imperator, which is not recommended, as it has the faults of the Vilmorin, *i. e.*, too many side rootlets and not sufficient sugar.

In order to give a better idea of the appearance of an ideal sugar-beet, I append various cuts showing the form, etc., but, of course, not the size. The length of the sugar-beet, as stated elsewhere, should be about 35 centimeters.



CLIMATE.

In Europe the sugar-beet is successfully planted between the forty-seventh and fifty-fourth degrees of northern latitude; in Germany, between the fifty-first and fifty-fourth; in France, between the forty-seventh and fiftieth; in Austria-Hungary, between the forty-eighth and fiftieth; and in Russia, between the forty-eighth and fifty-third degrees.

Like all plants, the sugar-beet requires certain conditions of climate to arrive at perfection.

According to the experiments of Briem, director of the experimental station in Grussbach, Moravia, concerning the distribution of warmth and rainfall during the period of vegetation of the sugar-beet in the first period, *i. e.*, in the first two months, the time of germinating, the daily temperature was 10.70° C.; in the second period (the time of the development of the vegetative organs), 18.8° C.; and in the third period (in which the storage of the reserve substances takes place), 16.5° C.; and during the whole vegetation, 15.3° C.

The total warmth in the first period was 650° C.; in the second, 1,150° C.; and in the third. 1,000° C.

The rain-fall was in the first period 97 millimeters; in the second, 114 millimeters; and in the third, 100 millimeters—together 311 millimeters.

The sugar-beet needs much warmth and light, sunny days, and a certain amount of moisture.

The best climate for sugar-beets is the so-called "wine climate," with a temperature from 9° to 10° C. in April and May, 17° to 18° C. in June and July, and 15° and 12° in August and September, respectively.

The sea-coast is not warm enough and has not enough sunny days in June and July to be successful for sugar-beet raising.

For the first period of vegetation it is necessary that a certain amount of winter moisture be in the ground, as the seeds need moisture to germinate. In the second period warmth and moisture is required for the production of roots and leaves; in the third period, in which the saccharification goes on, dry warmth. If the days be sunny, the beets will become rich in sugar; but if this period be wet, the crop will be great in quantity, but poor in quality. If, after a dry summer, a warm and rainy fall follows, new leaves spring up at the cost of the sugar.

SOIL.

The best soil for quality, as well as quantity of production, according to the experiments of Orth, are those that consist of mild, moist loam about 50 centimeters deep, then loam or marl 1 to 2 meters, and under this sand. Such soils, which are easy to cultivate, have a high degree of absorption, can combine nourishments, and give the plant physically a good start. Such soils are called "natural sugar-beet soils."

It is possible to raise beets on soils that do not have all these qualities, but the crop will be the better the nearer this standard is approached.

The conditions required for a good sugar-beet soil are—

(1) Depth, because the roots mostly take their nourishment from a depth of 30 centimeters, and the soil must therefore be loosened and contain nourishment up to this depth.

(2) Porousness of the subsoil, because it is impossible to cultivate a damp, cold soil at the right time. Such a soil will become cracked if very dry, and the young plants suffer, while the beets will contain little sugar. In such a case drainage must be employed. Clay soils can be improved by manuring, by the use of lime, and drainage; light soils by manuring and loamy marl.

Leplay found that the heaviest beets will be raised in descendent succession from clay, lime, loam, and sand soils; beets with the greatest percentage of sugar in lime, clay, sand, and loam soils; the most leaves in sand, clay, lime, and loam soils. According to experiments of Marek, the more moisture in the soil the greater will be the development of leaves. This influence is stronger in sand soil than in one of clay The normal development of the root depends upon organic matter in the soil. The more moisture there is in the soil the looser the texture, the poorer the quality, and the less sugar will be in the beet.

The following soils are adapted for the culture of the beet, if they have a good subsoil: Loamy soils, mild, clayey, or sandy, and clay marl. Of clay soils, the mild and loamy ones; if the amount of clay is excessive, the soil must be made suitable by manuring. Strong clay soils are useless for beets, but clay marl soils are good. Sandy soils are least adapted to the cultivation of the sugar-beet, with the exception of loamy sand soil not deficient in humidity and the subsoil possessing enough water-holding power. Lime soils are, with the exception of loamy lime soil, not good for beets. From moist soils are raised good quantities, but poor qualities.

The best locations for sugar-beet planting are on level or only slightly sloping lands, because work is done best on such lands, and it is impossible for the beets to be swept away by heavy rains.

TRANSPORTATION, MARKET, AND LABOR.

Sugar-beets are, in relation to their weight, cheap, and therefore it is not possible to transport them great distances. They should, therefore, be planted not far from the factory or the railway. The calculations of Settegast (Germany) show the influence of transportation upon beet raising. His results show that if 50 kilograms (112.5 pounds) of beets cost 25 cents, transportation on country roads costs 3¾ cents, and by rail 0.625 cents, for 1 German mile, or 4 English miles. Therefore, beets are worth nothing if they must be carried 26.68 miles on a country road or 160 miles by rail.

It is very important to have laborers enough, as it is impossible to do all of the work by machinery. The best way to provide laborers is to give them work the whole year—in winter in the factory, in summer in the field. One man (German) can do in a day's work of ten hours and for a day's pay: Sowing by hand after the marker, 0.15 to 0.075 acres; cultivating the young plants, 0.75 to 0.10 acres; hilling up by hand, 0.15 to 0.20 acres; thinning out, 0.10 to 0.125 acres; harvesting and loading, 2,250 pounds. Contract work one-third to one-fifth more.

MANURING.

The sugar-beet, of all the cultivated plants, needs the greatest amount of nourishment in the soil. It is, therefore, very necessary to use such a manure as will supply it with the best nourishment and in such a condition that it can be taken up by the beet. Possibly some soils are rich enough to do without manuring, but this seldom occurs. There are cases where beets have been raised in the same fields for ten successive years without fertilizer, and yet good crops have been obtained.

The ability of the sugar-beet to disclose and take up nourishment is not very high, and therefore, if a large crop is desired, much manure must be used. Manure must be used that will increase the percentage of sugar as well as the quantity of the crop.

According to E. Wolff, in 1,000 kilograms of sugar-beets are—

Constituents.	Roots.	Leaves.
	Kilograms.	*Kilograms.*
Water	815	897
Nitrogen	1.6	3
Ashes	7.1	15.3
Potassium	3.8	7
Sodium	0.6	2
Lime	0.4	3.1
Magnesia	0.6	1.7
Phosphoric acid	0.9	0.7
Sulphuric acid	0.3	0.8
Silicic acid	0.2	1.6
Chlorine	0.3	1.3

If we calculate per hectare (2.5 acres) 30,000 kilograms of beets (67,500 pounds) and 7,000 kilograms (15,750 pounds) of leaves, there is removed from the ground by beets—

Description.	Nitrogen.	Potassium.	Phosphates.
	Kilograms.	*Kilograms.*	*Kilograms.*
Roots	48	114	27
Leaves	21	28	5
Total	69	142	32

STABLE MANURE.

The direct application of stable manure to the beet is not good, because the beet will then not ripen at the right time, and the quality will be poor. Stable manure should not be put in the soil in the spring. It should be plowed under in the fall. The manure of sheep is worthless, as it contains too much nitrogen and potassium, and the amount of salts in the beets is so increased that they are hardly fit for the factory. Manure of cattle can be used if mixed with that of horses. This manure contains sufficient nourishment, but the amount of nitrogen in proportion to phosphoric acid is too high. This should be 1 to 2, but in this manure it is just the contrary. The amount of manure usually needed per hectare (2.5 acres), is between 20,000 and 40,000 kilograms. According to a table by Wolff, there is produced in the ground by applying 30,000 kilograms of manure, 150 kilograms nitrogen, 78 kilograms phosphates, and 189 kilograms potassium. From this nourishment the result of applying freshly decomposed manure is, in the first year, 35 to 50 per cent.; in the second year, 40 to 35 per cent.; in the third year, 25 to 15 per cent. An average crop of sugar-beets (30,000 kilograms) needs 69 kilograms nitrogen, 32 kilograms phosphates, and 142 kilograms potassium. Compost is a very good manure, but it is not good to use any sugar-beet soil in its preparation, as it may contain nematodes.

FERTILIZING.

In applying fertilizer, not only the crop, but the quality, of the beets will be better if it be used alone or employed to modify stable manure. Generally nitrogen, salts, and phosphates are used; exceptionally, potassium. According to P. Wagner, the following amount of phosphoric acid and nitrogen should be used:

Description.	Minimum per hectare.	Mean per hectare.	Maximum per hectare.
	Kilograms.	*Kilograms.*	*Kilograms.*
Dissolved phosphates	40	60	80
Nitrogen	20	30	60

If nitrogen, as Chili nitrate, is used, then there will be needed 150 kilograms minimum, 250 kilograms mean, and 400 kilograms maximum.

TIME FOR MANURING.

Manuring should always be done as early as possible in the fall. The longer the manure has been in the ground before the vegetation of the beet, the greater will be the amount of nourishment and its distribution. Experiments show that manuring in spring is wrong, and there are many reasons why. For instance, if the season is dry the manure can not decompose, the ground remains loose, and consequently the young plant suffers for water. On the other hand, as soon as a heavy rain comes after a drought, the leaves grow very fast, but the plant does not ripen well, and a large crop is raised, but of a poor quality. If the manure is not decomposed, the work in the field can not be done in good shape, and insects have a good refuge. On heavy, loamy soils fresh manure is good for loosening it and allowing the air to enter.

How deep to put the manure.—It is best first to put the manure in the ground as shallowly as possible, because it decomposes better until the deep plowing is done. The more nitrogen the beet finds in the first period of its vegetation the better. The less nitrogen found in the ground in the first period the more will be taken up in the last period, and that means a loss for saccharification.

The following table shows, by the experiments of Liebscher, that the crop may be increased without losing in quality, if the manure be properly applied and the beets planted closely:

Manure per hectare.	Sap.		Crop per hectare.
	Sugar.	Quotient in purity.	
	Per cent.	*Per cent.*	*Kilos.*
None	16.4	89.1	31,065
20,000 kilograms	16.3	87.4	34,785
30,000 kilograms	16.4	88.8	35,435
40,000 kilograms	16.2	89.1	42,100

The more nitrogen there is in the soil the less fertilizer will be required, but the more phosphate.

The increase of the crop by fertilizing with nitrogen is, according to experiments by Wagner: 100 kilograms Chili saltpeter with 15½ to 16 kilograms of nitrogen increases the crop about 4,500 kilograms of beets and 900 kilograms of leaves. Fertilizing with nitrogen should take place only when enough phosphate, lime, and potassium is in the soil, because large and good crops can only be expected when these substances are present. Whether enough phosphate is present can only be learned by experiment. Fertilizing with nitrogen should only be done in the spring. Chili nitrate should always be preferred, and the following rules should be observed:

(1) A good variety must be planted.

(2) Seeds should be obtained from the best sources.

(3) In addition to Chili nitrate, phosphate must be added, or the crop will mature too late.

(4) Fertilizing with Chili nitrate should be done before sowing, not after.

(5) Beets must be thickly planted, and cultivated four or five times.

According to the calculations of Stutzer, the use of more than 400 kilograms to the hectare of Chili nitrate does not pay.

Professor Marker has experimented upon the influence of phosphates with the following results:

Phosphates do not always produce an effect. If the soil is supersaturated with it, it can cause loss. This has often been observed by practical farmers. The cause is that P_2O_3 quickens maturity or causes an early death of the leaves, and that may lessen the crop, especially in a dry, rainless season.

Ten experiments have given the following results:

Fertilizer.	Crop per hectare.	Increase.
	Kilograms.	*Kilograms.*
Without phosphate (P_2O_3)	32,063	....
400 kilograms precipitate	34,456	2,393
Superphosphate (P_2O_5—76 to 80 kilograms)	35,346	3,283
400 kilograms Thomas slag	33,589	1,526
1,000 kilograms Thomas slag	34,756	2,693

There is not much difference in the effect of the various phosphate fertilizers so far as sugar in the beet is concerned. If it be necessary to use phosphate fertilizer in spring, superphosphate is always to be preferred.

SPREADING THE FERTILIZER.

Spreading broadcast has been found to be better than drilling. This is done by the machine shown in Plate 1.

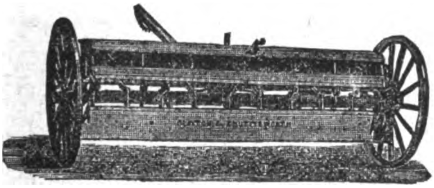


PLATE 1.

There are, however, drills which have an attachment for drilling fertilizer, as is shown in Plate 2.

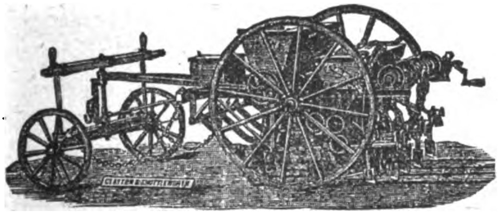


PLATE 2.

It is very important to put the fertilizer in the right depth. Practical experiments have shown that it should not be used after sowing. In using Chili nitrate, a shallow harrowing is sufficient, because the next rain will carry it deeper. Potassium and phosphate, which are absorbed immediately, must be put deep enough so that they will not evaporate. This can be done with a sharp harrow, or, better still, by shallow plowing. It is said that a depth of 20 to 22 centimeters is the best.

The following table shows the results of different depths in sandy loam soil, per hectare:

Year.	Depth.		Difference.	
	10 to 12 centimeters.	20 to 22 centimeters.		
	Kilograms.	*Kilograms.*	*Kilograms.*	*Per cent.*
1881	32,674	38,543	5,869	17.96
1882	36,217	39,030	2,813	7.77
1883	65,726	69,596	3,870	5.89

MIXED FERTILIZER (PHOSPHATE AND NITROGEN).

Of these are used: Peruvian guano (7 per cent. nitrogen to 10 per cent. P_2O_5), ammonia superphosphate, blood manure with superphosphate. Bone-dust is seldom used, as its effect is too slow; if used, it must be applied in the fall.

Although most soils have potassium enough, it may occur that lands where beets are raised every year may need it. The direct application of potassium salts to the beets is not good, because all these salts contain a chloride which injures the plants. The best is to give potassium mixed with stable manure two years before the beets are planted. When thus mixed, the ammonia is kept from becoming volatile.

Lime.—Quicklime is a good fertilizer, especially on very heavy soils, which it loosens. For 1 hectare 24 to 40 kilograms should be used.

For sandy soils marl is excellent, the best containing 30 to 50 per cent. of lime. The amount of marl needed for 1 hectare, if containing 30 per cent. of lime, is 220 kilograms; if containing 50 per cent., only 130 kilograms.

PREPARATION OF THE LAND.

The sugar-beet needs well-cultivated land. First, a surface loose and fine, which allows the air to enter and facilitates germinating and swelling; second, deep, loose, uniform soil, because the beet should develop a slender root without side rootlets. Both can be obtained only by good cultivation. Cultivation differs according to the soil.

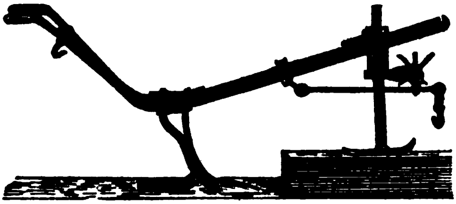


PLATE 3.

The following suggestions are of value: Loosen the subsoil without bringing it to the surface. If the subsoil be not good, this is doubly important.

The depth should be from 30 to 40 centimeters, and a plow similar to that shown in Plate 3 should be used.

To begin deep plowing, 30 centimeters will be deep enough. After several years it may be made 40 centimeters, but should be deepened only gradually, because, if too much dead soil comes up, the land is ruined for at least one year. Deep plowing should always be done before winter, so that the frost has time to work on the soil.

Steam plowing.—By the introduction of the steam-plow an implement was put in the hands of the farmer, the work of which can not be equaled. The reasons why the steam-plow works so well are—

(1) By the speed with which it operates the soil is well mixed and pulverized.

(2) The depth of all the furrows is the same.

(3) It plows to any depth, especially in heavy soils which would require a large number of animals. Generally the soil is loosened to a depth of 35 to 40 centimeters, and the plants are enabled to take nourishment from a larger quantity of soil.

(4) In dry seasons soils plowed by steam retain longer their humidity. In wet seasons the water descends quicker to the subsoil. The steam-plow increases the crop and renders it certain.

(5) The animals leave foot-prints (four oxen make about three hundred and sixty thousand in plowing 1 hectare), and therefore cause a not unimportant loss.

(6) It is possible to work in spring and fall, when with animals it would be impossible.

(7) A large number of animals can thus be used for other purposes.

If we consider that with a steam-plow 3 hectares can be plowed in a day, while with a common plow one-third of a hectare can be gone over, then nine common plows are needed to do the work of one steam-plow; and, as four oxen are needed for each plow, thirty-six oxen would be employed; and, as they should be used only half a day, seventy-two oxen would be required, and their work is not equal to that of one steam-plow.

The excellent work of the steam-plow can increase the crop of beets from 4,000 to 5,000 kilograms per hectare. The cost of plowing by steam is between $11 and $16 per hectare for a depth of 32 to 40 centimeters.

Deep plowing can be done in such a way that two plows go one after the other, the first cutting 15 to 20 centimeters deep and the second 10 to 18 centimeters.

Another way to loosen the deeper soil is as follows: The land is plowed from 15 to 20 centimeters, and laborers then spade up the deeper soil from 20 to 24 centimeters, the under-soil being scattered over the surface. This method is expensive, but produces very good results.

Still another way to procure most of the advantages of deep plowing, and one which is generally used on very heavy soil or on lands exposed to inundations, which consequently dry at a late period, is to form ridges.

This is done in the following manner: The land is plowed in the fall in such a way as to form ridge. For this purpose a hill plow is used, or a machine invented by Doctor Bartel and called a "ridge former."

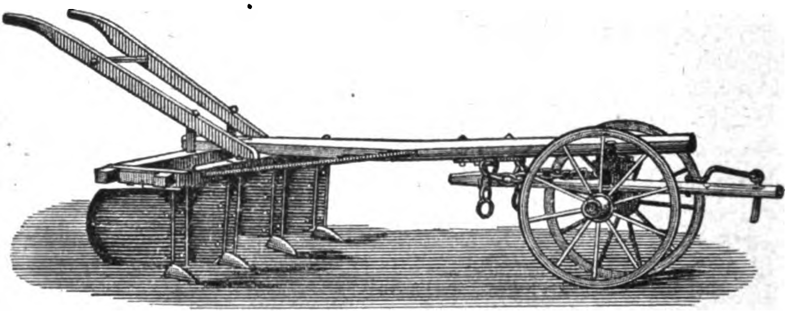


Plate 4.

In spring these ridges are split, and thus new ridges are formed. These must be rolled to an even surface.

The advantages of preparing the land in this way are: The water gathers in the furrows and runs off; the soil in the ridge is always in a good condition and the air can penetrate it.

If grain has been grown on land about to be planted in beets, the preparation goes on in the following way: The stubble is plowed as soon as possible to a depth of 5 to 8 centimeters. For this work gang plows, as shown in Plate 5, are used.

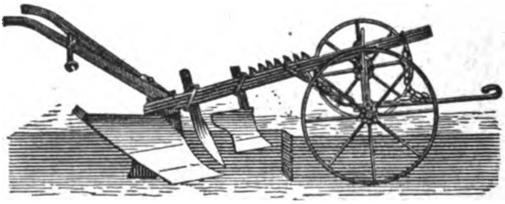


Plate 5.

As soon as weeds come up the land is harrowed and rolled. Before winter the deep furrow is plowed, and, if stable manure is used, it should be applied before the middle of November. In such cases only a moderately deep furrow is needed, because, as before remarked, the manure thus decomposes better.

The land remains in this state during the winter, and is therefore exposed to the influence of frost, rain, etc. In spring it is ready for the beets. Then, as soon as possible, it should be harrowed. The harrows used are, if the land is crusted, "The Extirpator," or, if necessary, it must be plowed 15 centimeters deep. Then the "Acme" harrow is used.

If sugar-beets follow beets, potatoes, or corn, the land is simply plowed before winter.

Before planting all land should be rolled.

PLANTING.

The time of planting influences the crop in a high degree.

It is shown that in a warm, dry season the crop of an early planting is larger than in a cold, humid season. The time of planting is the middle of spring, with a temperature of from 9° to 12° C. (48° to 54° F.). Early planting begins with April and lasts until the end of that month; late planting is in May. In general, early planting is to be preferred, because the danger from frost is not so great as that of drought. It should always be remembered that the seeds should be put in a soil warm enough to germinate in six or eight days, not twelve to sixteen days, as is the case in cold, humid soil.

Distance apart.—This has a great influence on the crop and the quality of the beet. The experiments of Valmorin show that the largest crop will be grown if the beets be planted comparatively near together. If the distance increases, the proportion of leaves increases. The lighter and poorer the soil the further must the beets be planted apart, and experiments show that this influence is greater than that due to manuring, or even the choice of the variety. Distances vary from 30 to 50 centimeters from row to row, and from 10 to 25 centimeters in the row.

Depth for planting.—The seeds need only a very light covering—2 to 3 centimeters is the right depth. If part of the seeds are not covered at all, it does not cause so much damage as if they are covered too deeply.

CULTIVATION.

From the time of planting up to that of harvesting the following suggestions should be observed: As soon as the sowing is done the roller must be used, because in pressing the surface the humidity, which is very necessary for the process of germinating, is drawn by capillary attraction out of the deeper soil, and the surface is thus kept moist. The roller may be smooth or have rings; the latter is better, because it makes the surface of the land rough, and therefore a heavy rain can not form a crust. If, after sowing, a crust covers the field, the ring-roller is the best implement for breaking it, and after this a light harrow is recommended. Thus is the soil loosened, the air can enter, and germinating and growing are facilitated. When the plants have grown so that the rows are visible, hoeing must be done, and the earlier the better, not only because the weeds are destroyed, but also because the plants need a loosened soil. The oftener the plants are hoed the better will be the crop as regards quantity and quality. Indeed, quantity and a high sugar percentage can only be obtained by hoeing. The first hoeing must be only superficial, that all the weeds are thrown on the surface to dry, and care must be taken that no soil covers the young plants. The hoeing should be done even if the land be dry, as hoeing prevents the evaporation of the water from the deeper soil. If laborers can be had, it is preferable to first hoe by hand in such a way that only the soil about 50 centimeters distant from the beet is hoed and the soil between the rows is untouched. This is then hoed with the cultivator. If hoeing must be done by horse-power, the cultivator shown in Plate 6 is used.

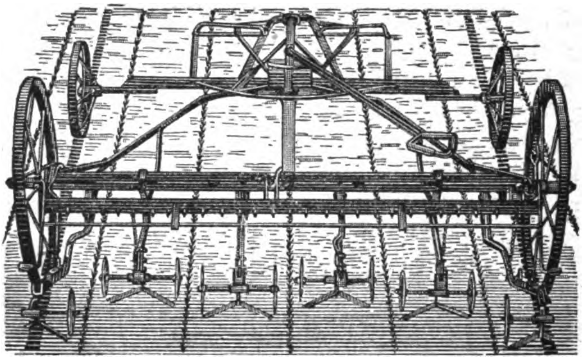
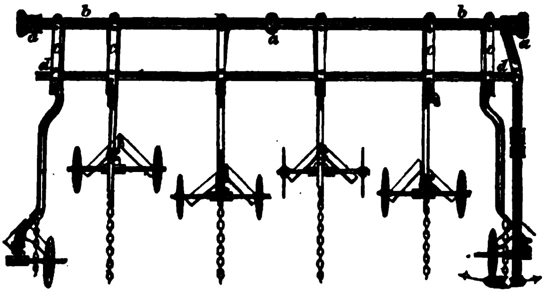


Plate 6.



View from above of same machine.

After the hoeing comes thinning out. This must be done as early as possible, and, generally, plants sowed by the Dippel machine must be thinned out earlier than those planted by the drill, the reason being that the latter have more light and air than the former. It is practical to thin out when the plants have three or four leaves. The root is then as thick as a straw, and the whole plant has a length of 8 to 10 centimeters.

If planted with a drill, the work of cultivating can be done in two ways:

(1) The field is crossed with the cultivator at right angles to the rows, and the knives are set so that they leave about 2.5 centimeters on each side of the beet untouched. Of the plants which remain in this space the weakest are removed by hand.

(2) The whole work is done by hand. By means of hoes the laborers remove the superfluous plants, leaving spaces about 20 to 25 centimeters between. Children are employed here for this work, as they can best get down to it.

Cutting the leaves off is not sufficient, as the leaves grow again; or, if not, the plant becomes a harbor for insects. One person can thin out one-ninth to one-eighth of an acre a day. After thinning, hoeing by hand should follow immediately to loosen the soil around the plants; then, between the rows should be hoed, and the time this should be done depends upon the weeds and the soil. As a rule, the intervals should not be more than a fortnight. A fourth, and possibly a fifth, hoeing would increase the crop. Of course, hoeing can not be done when the plants are large enough to be damaged.

Hilling up now follows. This must be done because, by covering the beets with soil, it prevents the heads from growing out, and therefore this part of the root, which is of no value to the manufacturer, as it contains little sugar, is lessened. Water can run off and evaporate better, and the soil will not become incrusted. In heavy soils this is a very important point. The time for hilling up is important, as if this is done too early the plants are buried, and if too late the leaves are damaged. Hilling up can only be done when the soil is in good condition, *i. e.*, neither too wet nor too dry. For this can be used a plow with a single share, or that already shown in Plate 5. On small farms it is usually done by hand.

ENEMIES OF THE SUGAR-BEET.

The insects which do the most damage to the root are—

(1) The larvæ of the May-bug. Remedies are to collect the bug and leaves, and encourage protecting birds and moles.

(2) The larvæ (wire-worm) of the *Elater lineatus*. Remedy is to gather the leaves.

(3) *Atomaria linearis*. Remedy is not to plant successive crops of beets, and to wash the seeds in a liquid composed of 100 parts water, 5 parts Epsom salts, and 1 part of carbolic acid. In this fluid the seeds should remain twenty minutes.

(4) Caterpillars of *Agratis segetum* (Noctua *seq.*). Remedy is deep plowing, and gathering the insect at night with a lantern.

(5) *Julus gullulatus et terrestris*. The remedy for this formidable sounding insect seems to be like that in the preceding cases, *i. e.*, the best thing to do is to catch the bug.

(6) *Heterodera spachtie nematode*. This insect caused the disease of the soil which produced the so-called "fatigue of the beet." Remedy is to sow plants in which to catch the insects. The best is the *Ropia brassica rapaoleifera*.

Insects which damage the leaves are—

(1) *Silpha apaca*. Remedy, distribution of dead animals in the soil, as the larvæ prefer flesh.

(2) *Cassida nebulosa*. As this insect is attracted by the weeds, the latter should be carefully removed.

(3) Larvæ of *Cleonus sulcirostris et punctiventris*. Remedy is its collection and removal.

(4) *Plusia gama*. Remedy, collecting.

(5) Larvæ of *Anthomya conformis.* Remedy is to hoe it on the surface, where the birds can get it. Collect it with the leaves, if necessary, and burn them.

(6) *Hattica nemorum.* Remedy is to plant early enough that the plant can resist the attacks of the insect; also, destroy them.

Parasites which injure the plant are—

(1) Rust, caused by *Aeromices betæ.* Remedy, the leaves of the beets used for raising seed, and which show attacks of the parasite, must be destroyed.

(2) Mildew of beets (*Peronospora betæ*). Remedy, beets used for raising seeds must be carefully selected, and, if mildew is observed, the beet must be rejected. In spring, before planting, the same precautions must be again taken.

(3) Beet rot, caused by *Rhizætonia violacea.* Remedy, in storing, to separate the affected beets from the sound ones.

(4) Smut, caused by *Helminthis parium rezoctonia.*

(5) Leaf dryness, caused by *Depazea betæcula.*

(6) Rot of the heart, caused by *Sporidium putrifacieum.*

(7) Rot of the beet.

It is possible that the sugar-beet may meet in the United States with a still more formidable enemy, though bearing a less imposing name, viz, the "sugar trust." No doubt, however, the remedy used in so many of the cases above mentioned may also be used here.

HARVESTING.

This is done when the beets are ripe, *i. e.*, when growing stops and all the products of the leaves go to the root, where they are deposited. In Bohemia beets ripen from the end of September to the middle of October.

Signs of ripeness.—The leaves become yellowish green, fall, and form a kind of a wreath around the plant. The middle leaves, so-called "heart leaves," also of a yellowish green, do not fall.

Harvesting should not be too early, as the loss occasioned thereby may amount to as much as 2 per cent. Of course, harvesting must take place before heavy frost, though the beet can stand frost from 3° to 4° C. (24° to 27° F.). If early frosts should come, it is best to let the beets thaw in the soil, as the loss will be thus lessened.

How harvesting is done.—(1) By hand. To each man is apportioned a certain tract of land, which he works by contract. The soil around the plant is loosened, and then the plant is drawn from the ground by hand. Work with the fork would be easier, but might injure the beet.

(2) By team. A subsoil plow is used, which should be set for a depth of 35 centimeters. A still better implement is the beet-lifter, shown in Plate 7. This machine can be worked by a boy, and also does not injure the plants, which are left loosely standing upright in their places, where they are better protected against sudden rain or frost than if lying upon the ground. As

work can be done much faster with the lifter than by hand, this machine will no doubt be of much use in the United States.

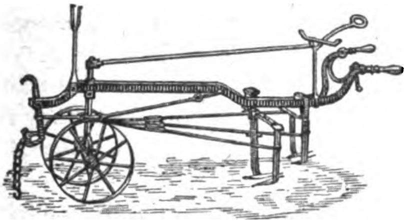


PLATE 7.

Cutting off the heads.—The green heads must now be cut off, as they are of no use. This is done in the field, and here it is the work of women and girls, who accomplish their work rapidly, using sharp knives. About 1 to 2 centimeters of the beet is removed.

Piling up the beets.—This is necessary, as it is impossible to immediately transport an entire crop to the factory, and they must be protected from rot and frost. Perhaps the best plan is that recommended by Knauer, especially if the beets must remain a long time on the field. A ditch 1 foot deep and 6 feet wide is dug, and of the required length. Beets are then piled up with roots toward the center for a height of 1 foot, and covered with 6 inches of soil. Then another layer of beets, covered also, is added, and then another, until the pile, tapering, is of the shape of a prism. If the soil is very dry, water should be applied. Beets so buried will keep six or seven months with little loss.

It is best to grow only one crop in four or five years on a single field, as otherwise the soil will be exhausted and insects and parasites increase, so that great losses would occur. Beets should follow grain or barley, and after the beet the best crop to plant is barley.

RAISING SEEDS.

If the beet industry were fully introduced into the United States, one of the first subjects that our people would have to consider would be the raising of seeds, as in Germany and Austria the supply is only able to meet the present demand. The beets selected for raising seed should possess all the attributes of a good beet as previously described.

For ascertaining the proportion of sugar in the beet, a piece is taken from the middle and the specific gravity of its sap found. This is, however, inaccurate, and the best plan is to submit the sap to polarization.

For raising seeds stable manure is unsuitable, but phosphate is highly recommended. This can be applied in the spring by grubbing. The cultivation of the beet then goes on in the manner already described. The seeds are ripe when they look meal-like if cut. The main sprouts ripen earlier, and therefore harvesting must begin with these. The plants are cut off with sickles, bundled up, and put away for drying. Threshing is generally done by hand, either on the field or at home. If done on the field, a cloth is spread, upon which the work is done. The seeds are then cleaned and ready for storing. If stored properly, they should retain their generating power from four to five years. The crop from 1 hectare should be from 15 to 35 meter centners (3,360 to 7,740 pounds).

It should be mentioned that the seed beets, after being carefully selected, are buried in ditches. In the spring these are carefully set out and cultivated with great care. Upon ripening the leaves are gathered and treated as above described.

Prof. Anton Veith, director of the agricultural college here, whose assistance has been invaluable to me in the preparation of this report, submits the following suggestions for the American farmer. As Professor Veith is thoroughly familiar with the subject of beet culture, and furthermore spent two years in America studying our farming methods from New York to California, his hints will be found practical. The professor also kindly expresses a willingness to answer any inquiries made to him on the subject of beet culture.

HINTS TO AMERICAN FARMERS.

(By Professor Veith.)

In traveling through the United States I was astonished to find that an industry so highly developed in the old country was nearly unknown there.

The influence of such an industry as the fabrication of sugar from beets exerts such a great influence upon a country that it deserves all the support of a great government.

In 1887 there was only one beet sugar factory in the United States, and that was in Alverado, Alameda county, California.

Upon inquiring as to the cause of this, I heard that several factories had been started in Illinois, but that after a few years had to be closed, as they did not pay.

I was told by the editor of a rural paper in Chicago that the soil was unfit for the purpose; by a professor in Kansas that beets would not grow containing a high enough percentage of sugar; by a chemist in Washington that the cultivation and manufacture had not been properly carried out.

The last opinion was undoubtedly the correct one.

The United States possesses soils of every kind, and in every State where wine and corn are grown it is surely possible to raise sugar-beets.

But in raising sugar-beets the American farmer, especially of the Western States, must get rid of the idea of always trying to save labor. Sugar-beets need much work, but they pay double or treble as much as any other crop.

Localities are to be preferred where there is a large population, plenty of transportation facilities, providing always the climate and soil are suitable.

Raising sugar-beets on a large scale, as is the case with grain in America, is impossible, as labor is dear and it is impossible to get sufficient help for a few weeks' work. I think the plan adopted by Claus Spreckels, in California, is the best. Here small farmers who do their own work with little help raise the beets and sell them to the factory. A better plan would be for a number of such farmers to form an association and erect a factory themselves. We find such associations in Germany, and they do very well.

In order to stimulate the farmer to raise beets of a high sugar quality, the factory should pay in accordance with the sugar percentage, *i. e.*, to demand a certain percentage, say 9, and pay extra for any increase over this figure.

Raising sugar-beets gives the farmer a chance not only to get more out of his land than possible with other products, but also improves his land for other products.

If the farmer sells the beets to the factory and gets back the pulp for feeding and perhaps the mud or lime, he loses very little of the mineral substance from his soil, as the sugar-producing substances are absorbed by the plants from the air.

Raising beets improves the land, because the thorough cultivation necessary brings it to a perfection never to be attained with other crops. The land will also be clearer of weeds.

In raising beets the whole agriculture of the country must be changed, *i. e.*, brought from an extensive culture to an intensive one.

In raising corn, grain, fodder, etc., the farmer uses only the upper part of his land, and not the subsoil. If sugar-beets are planted, the deeper soil is also placed at the service of the owner.

In connection with the improvement of the land, cattle raising is also improved, as the waste furnishes excellent fodder for milk as well as for fattening. An increase of manure can therefore be produced.

The first thing a farmer should do is to procure proper seeds, and these he should raise himself.

As implements are expensive, those should be procured which can be used for various purposes, as the universal plow of Sack.

For planting seeds it is recommended to try the corn-planter.

In closing I would only state that there exists a great future for beet culture in the United States (and I would recommend that careful experiments be made) and that the success which has already greeted Claus Spreckels in California be followed in other quarters.

Sugar-beet crop in Austria-Hungary.

Provinces.	Crop.			Planted in sugar-beets.		Crop raised on 1 hectare.	
	1886.	1887.	1888.	1887.	1888.	1887.	1888.
	*Met. cent.**	*Met. cent.**	*Met. cent.**	*Hectares.*†	*Hectares.*†	*Met. cent.**	*Met. cent.**
Lower Austria	....	383,760	730,690	2,578	2,578	135	169
Bohemia	....	15,301,600	27,400,460	91,830	120,060	154	190
Moravia	....	7,639,650	10,523,930	51,142	62,800	137	152
Silesia	....	788,630	887,820	4,024	4,165	182	175
Galicia	....	444,500	551,450	4,445	4,625	100	120
Total	32,984,870	24,558,140	40,094,350	154,019	194,228	‡141.6	‡161.2

* 1 meter centner = 220 pounds. † 1 hectare = 2.47 acres. ‡ Average.

MANUFACTURE OF SUGAR.

We have now traced the cultivation of the beet from the preparation of the land to the moment when the root, minus its useless head, is ready for fabrication. In studying the subject of this report, then, I have to ask my readers who have accompanied me through the great beet fields of Bohemia, where we have seen the various stages of cultivation, to now leave the farm and enter with me the greatest sugar factory in Bohemia. And here I may remark that, while this paper is not intended to give more than a superficial idea of the process of manufacture of sugar—and machinists and engineers are referred to the books mentioned for detailed information—I have found it necessary to go somewhat into technicalities and to employ plates to illustrate the various processes. Without this the general reader could not possibly get an intelligent idea of the subject.

Standing in the court-yard of the great factory referred to, we see wagon after wagon dumping its load, for each of which the farmer gets a receipt. No price has yet been fixed, but the farmer must sell to the factory, as beets can not stand transportation, on account of their weight, as already explained. The price will be fixed later by the manufacturer, who is, indeed, the Great Mogul of the neighborhood, and could exclaim with Napoleon: "*L'etat, c'est moi.*"

Through the middle of the court referred to runs a ditch lined with perfectly smooth tile, through which a rapid stream of water carries the beets to the washing-machines, where all dirt and stones are removed.

It may be here remarked that while there are two ways of extracting the sap from the beet, viz, by pressure and by diffusion, only the latter is employed in this neighborhood. The advantages of the process of diffusion are: The cheaper plant required, less workmen and force, ease of keeping apparatus in order, simple inspection of the work, its cleanliness, easy increase of work without corresponding loss of sap, and the entire absence of "press cloths." The only disadvantage is the great amount of water required, which limits such factories to those localities where sufficient water can be had.

The beets having been thoroughly cleaned, an elevator carries them to the top of the building and delivers them to the cutters, where ribbed knives reduce the beet to little cuttings like vermicelli. A railway carries this material and dumps it into the "diffuser." The diffuser is an iron cylindrical tank, made to close tightly, and supplied with pipes above and below. Nine are usually connected together, and constitute what is called the "diffusion battery." This battery forms so important a part of the sugar factory that I must now introduce two diagrams, marked Plate 8 and Plate 9, and to frequently refer to them in order to explain the process of diffusion.

In Plate 8 are seen nine diffusers, indicated by circles; horizontal shading means filled with water, diagonal lines filled with cuttings, and the balance are empty. The arrow shows the water entering, and finally the sap leaving the apparatus for the saturator.

In this connection also we must study Plate 9, which shows more plainly the mechanical connections of the battery.

Here the diffusers are also numbered from I to IX, the water-valves W to w_9, the sap valves from S to s_9, the overflow valves from u to u_9, and the calorisators from C to C_9. The tubes V to V_9 connect each diffuser with its calorisator.

In beginning work water is first warmed in the last vessel of the battery, while the first is being filled with beet cuttings.

First stage.—The water comes from the reservoir through the tube W and valve w_7 into the diffuser VII from above; passes through V_7 to C_7; here ascends and passes by the closed valve s_7 through u_7, over w_8, through VIII, V_8, C_8, over s_8, through u_8, over w_9, through IX, V_9, C_9; travels the short distance from s_9 to s_1 in the sap pipes, streams into C_1 from above,

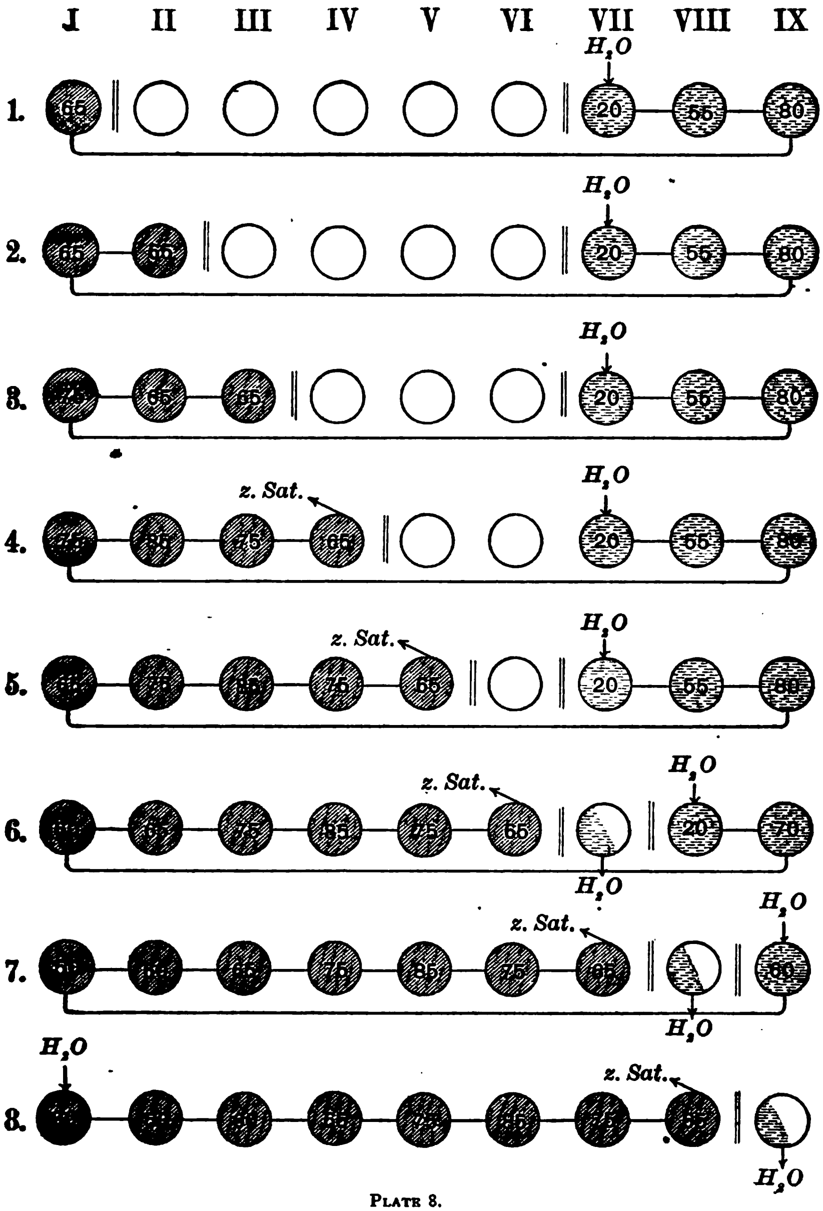


PLATE 8.

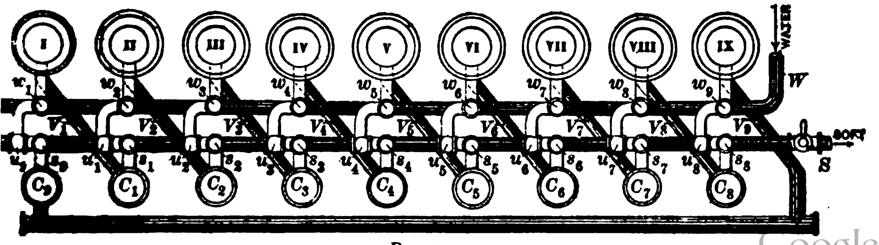


PLATE 9.

passes V, and ascends into diffuser I from below upward through the cuttings. So soon as the fluid has reached the walls of the man-hole the cover of the diffuser is closed and the water begins to run out of the air-cock, when this is closed.

Second stage.—While the water is entering I, II is being filled with cuttings. When this is done, the water which enters C_9, as previously described, passes over s_9, through u_9, over W from above into the vessel I, and streams through V_1, C_1, s_1, s_2, C_2, and V_2 into the vessel II from below.

Third stage.—The same process is repeated, whereby another vessel is employed.

With the fourth stage begins the departure of the sap. The fluid now takes from C_9 the following direction: Over s_9, through u_9, over w, through I, V, C, over s, through u, over w_2, through II, V_2, C_2, over s_2, through u_2, over w_3, through III, V_3, C_3, s_3, s_4, C_4, V_4, and ascends in IV through the fresh beet substance. As soon as the cover is closed and all air is expelled through an air-cock, the valves from C_3 should be changed. The sap now rising in C_3 goes over s_3, through u_3, over w_4, through IV, V_4, C_4, s_4, and leaves the battery at s to enter into the saturator.

The further stages, five, six, seven, and eight, are shown diagrammatically in the table.

With the ninth stage begins the regular work. From now on, of the nine vessels, eight are always working while one is emptied and filled with fresh cuttings. Each diffuser, before being emptied, is completely isolated, by closing the valves, from the rest of the battery. The operation of the valves must be in precisely the order indicated. Failure to do this will cause disturbance. For instance, the closing of the valves u and s to the right is of importance, as otherwise the water and sap will become mixed, whereby leaching will take place and evaporation rendered more difficult. Further, it should be taken as a general rule that the sap stream should enter every operating vessel from above, except in case of the vessel just filled, when the stream is reversed and ascends from below in order to prevent formation of foam and to drive out all air from between the cuttings.

The temperature must be right in each diffuser, or the sap, as well as the pulp, will be injured. As the sap circulation proceeds without interruption, the principal steam-valve remains always open, and the regulation of the temperature is controlled by the valves from the calorisator.

We will now suppose that the sap has been all extracted from the beet cuttings and has passed over to the saturator as a dirty-looking fluid with a disagreeable taste and smell. In the diffusers remain the pulp, now of no more use in the sugar process, but of much value in other respects. A trap in the bottom of the diffuser opens and the pulp is thrown into a slide, where moderate pressure removes the water as it passes downward to the cellar, to be used subsequently for fodder, for which it is admirably adapted, especially if mixed with substances containing fat and nitrogen, as oil-cake, ground corn, etc. It is stored for use in ditches, after being mixed with chopped straw, and is covered with straw and soil, being packed down as tight as possible. By being stored the pulp ferments and gains in digestive properties and flavor.

We now return to the sap, which has reached the saturator, a vessel made of block-tin, the use of which is the removal of foreign substances and the saturation of the sap. The saturator is half-filled with sap. Lime-milk is now introduced, as well as steam and carbonic dioxide. The steam must be so controlled that the temperature of the sap slowly rises, until at the close of the saturation it amounts to about 85° to 90° C.

The results of the treatment with lime and carbonic acid gas are as follows:

(1) The sap, previously dirty, dark, smelling of beets, more or less slimy, and slightly acid, becomes clear, light yellow, thin in consistency, alkaline, and emits an odor of ammonia.

(2) The sugar forms, with the lime, a saccharate, which, however, under the influence of the CO_2 is immediately resolved.

(3) The nitrogen-holding portion of the sap is resolved through the action of the lime.

(4) The nitrogen-free organic acids, as ascetic and oxalic, are precipitated as salts of lime.

(5) Coloring matters are partly thrown down and partly remain in the solution. Dextrine combines loosely with the lime.

(6) Magnesia, oxide of iron, and phosphoric acid are precipitated, and sulphuric acid is also separated, while all the other mineral substances remain in the solution.

By this process, of 100 parts of foreign matter 40 to 50 will be removed. The sap contains yet, however, many impurities, and the next step is to carry it through the filter-press, which removes the dirt in the form of a cake. This cake is used for manuring.

A still more important means of cleaning, and one which removes the last of the impurities from the sap, is the filtration through animal charcoal or spodium. This spodium is a charcoal made of bone, and is used in pieces as small as a chestnut, or smaller.

The filter battery, composed of several filters made of block-tin, from 18 to 30 feet high and from 1½ to 3 feet in diameter, is shown in Plate 10.

These are filled with spodium and are packed to prevent cooling of the sap as it passes through. Over the battery are reservoirs for water and sap. The action of the spodium upon the sap is as follows: The sugar is taken up by the charcoal, but is only loosely held, and can be easily removed with water; saccharate of lime is rapidly seized upon and precipitated as hydrate of lime and free sugar; coloring matters are energetically absorbed, and can not be washed out.

The remaining organic non-sugar substances are absorbed, but are not combined with equal force. A part enter into a chemical combination, while another part is only loosely retained by the spodium, and may be again washed out.

The salts act respectively in accordance with their chemical nature.

In spite of many experiments, no good substitute has yet been found for spodium as a filter material. After being used it is washed out and then thrown into a furnace and all impurities burned out, when it is again ready for use.

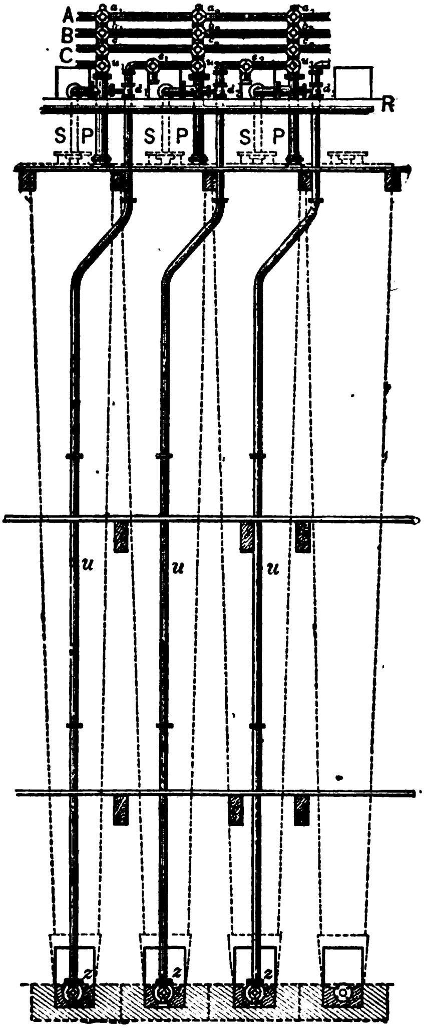
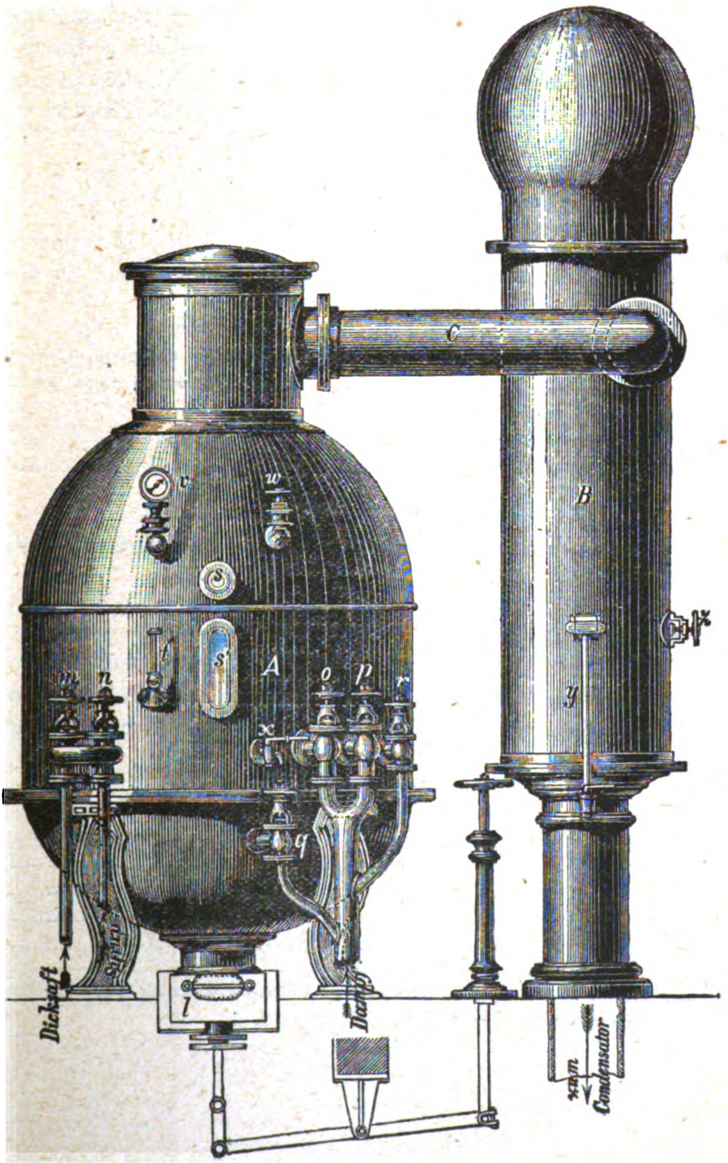


PLATE 10.

The sap must now be concentrated, and this is done by steaming and boiling until the right consistency is reached to favor crystallization. As a high temperature is objectionable, use is made of the well-known physical law that boiling takes place at a lower temperature in a vacuum, and the vacuum apparatus shown in Plate 11 is employed.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Condensator

PLATE II.

The material is now let off into cooling-pans, where crystallization begins, and from here the mass is poured into block-tin conical moulds, and finally comes out as the familiar sugar-loaf.

A second quality of sap is conveyed to the centrifugal machines, which revolve about a thousand times a minute, with the effect of causing the crystallization of a great ring of white sugar, while the balance is drawn off as molasses, no further crystallization being possible. These rings of sugar are crushed and packed in sacks for market, constituting the so-called "pilé."

I may now mention the existing

TAXES AND DUTIES ON SUGAR IN AUSTRIA.

According to the law of June 20, 1888, there must be paid a consumption tax on sugar, whether made out of raw material or the "reste" from sugar manufacture.

	Florins.
(1) Beet and all other sugars in every degree of purity, with the exception of sirup. unfit for human use..........per 100 kilograms, net...	11
(2) Sugar of any other kind:	
As a solid..........	3
As a fluid..........	1

EXPORT INDEMNITY.

From August 1, 1888, an indemnity is granted on exports of sugar of the first class—

	Florins.
(*a*) For 100 kilograms, net, from 93° to 98° of polarization..........	1.50
(*b*) For 100 kilograms, net, with at least 99.5° of polarization..........	2.30

If this indemnity should amount in one year to more than 5,000,000 florins, the manufacturers are pledged to return the balance to the Government.

DUTY ON IMPORTED SUGAR.

	Florins.
(*a*) Raw sugar under Holland standard No. 19..........per 100 kilograms...	15
(*b*) Raw sugar under Holland standard and higher than No. 19..........	20
Refined sugar..........	20
Sugar solutions, starch sugar, grape sugar (glucose) as a solid..........	15
Sirup (starch sugar, grape sugar, as a liquid) and molasses*..........	6

---

* This sirup must not contain any crystallized sugar, and must not crystallize if heated. If boiled two minutes it must reduce Soldaini's solution.

Statistics of the sugar-beet industry in Austria-Hungary.

Years.	Number of factories working.	Amount of beets.		Export.		
		Notified.	Paid tax for.	Refined sugar.	Raw sugar.	Total in raw sugar.
		Met. cent.	*Met. cent.*	*Met. cent.*	*Met. cent.*	*Met. cent.*
1867-'68	151	12,165,753	10,854,380	....	....	....
1868-'69	162	9,409,232	7,934,382	5,258	2,452	8,762
1869-'70	181	14,107,376	12,291,160	149,438	362,646	541,972
1870-'71	215	18,538,173	15,931,191	369,762	400,897	844,651
1871-'72	251	16,114,062	13,624,246	213,594	396,840	653,153
1872-'73	256	20,418,912	17,333,189	233,433	455,262	735,382
1873-'74	244	16,166,107	13,773,879	293,867	495,465	848,105
1874-'75	226	11,634,409	9,832,973	299,939	264,007	623,934
1875-'76	231	14,969,313	12,780,932	398,775	609,334	1,087,864
1876-'77	227	17,105,561	14,891,538	385,633	688,371	1,151,131
1877-'78	229	26,310,846	22,846,002	567,300	988,440	1,669,202
1878-'79	226	30,926,289	28,287,800	809,915	1,088,559	2,060,457
1879-'80	226	28,975,077	26,252,919	605,835	1,546,142	2,273,144
1880-'81	227	47,308,640	44,097,228	880,095	2,113,493	3,169,564
1881-'82	230	46,280,701	42,806,735	891,022	1,204,814	2,274,040
1882-'83	232	51,345,805	48,862,203	1,257,466	1,387,934	2,896,893
1883-'84	230	44,856,566	41,845,679	1,251,786	1,105,021	2,607,164
1884-'85	229	46,087,950	43,401,900	1,291,085	155,648	3,704,590
1885-'86	212	28,453,837	26,151,015	1,164,488	683,607	2,080,993
1886-'87	217	45,589,629	42,870,875	1,697,822	1,010,392	2,896,861
1887-'88	207	35,226,999	32,263,262	1,243,419	502,349	1,883,926

Years.	Receipts.			Total repaid for evaporated sugar.	Net amount of tax over duty.	Recovered by after payments.
	Tax on beets.	Duty.	Total.			
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
1867-'68	7,352,266	16,010	7,368,276	1,805,117	5,563,159	....
1868-'69	5,802,017	267,600	6,069,617	77,528	5,992,089	....
1869-'70	8,987,911	23,886	9,011,797	4,742,147	4,269,650	....
1870-'71	11,649,684	10,056	11,659,740	7,306,653	4,353,087	....
1871-'72	9,962,730	14,482	9,997,212	5,817,097	4,160,115	....
1872-'73	12,674,894	23,032	12,697,926	6,410,106	6,287,820	....
1873-'74	10,072,149	23,400	10,095,558	7,152,491	2,943,067	....
1874-'75	7,190,361	10,646	7,201,007	5,458,683	1,742,324	....
1875-'76	9,330,081	7,354	9,446,744	9,472,991	—26,247	....
1876-'77	10,870,823	5,364	10,876,187	10,479,973	396.214	....
1877-'78	16,677,581	8,477	16,686,058	15,335,217	1,350,841	....
1878-'79	20,050,094	6,761	20,656,855	18,960,724	1,696,131	....
1879-'80	19,164,634	11,150	19,175,784	20,843,110	1,667,326	4,303,869
1880-'81	35,277,783	8,462	35,286,245	29,994,247	5,291,998	8,167,326
1881-'82	34,375,531	14,862	34,290,393	21,608,839	12,781,554	4,708,002
1882-'83	39,090,563	10,593	39,101,156	27,563,813	11,537,343	....
1883-'84	33,476,543	8,782	33,485,325	24,833,009	8,652,111	....
1884-'85	34,721,521	7,112	34,728,521	35,173,673	—445,041	1,810,546
1885-'86	20,920,812	7,085	20,927,897	19,865,085	1,062,812	12,045,041
1886-'87	34,296,700	6,155	34,302,855	29,098,681	5,204,174	10,937,188
1887-'88	25,810,610	5,947	25,816,557	19,979,946	5,836,611	6,963,389

THE SUGAR FACTORY.

The manufacture of sugar can only be carried on on a large scale. It is a great advantage for the manufacturer to own and conduct his own plantation. Water is a prime requisite, and an important matter, also, is the disposal of the water after it has been used, as it is then capable of destroying a stream for all further uses, and this would cause endless suits and annoyances. The water should be conveyed into ponds, where it may evaporate or sink into the ground, or, better, distributed over the fields. The factory should be so situated that coal can easily and cheaply be obtained and the goods profitably shipped to market. It is, however, more important that it be in the immediate neighborhood of the plantation. A middling-sized factory requires about three hundred workmen. As the factory only works about five months, it is necessary, in order to secure permanent help, to employ the laborers in the field also.

THE BUILDING.

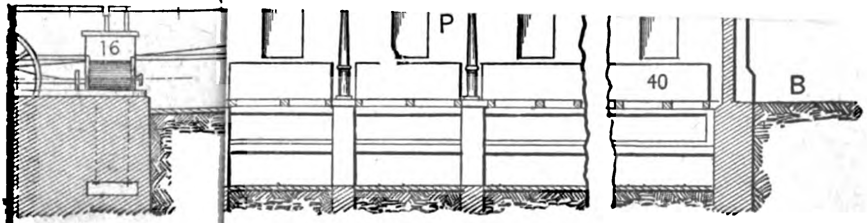
While it is not my purpose to go into the architectural features, I desire to introduce here the accompanying admirable plan, not only as exhibiting a model factory building, but as showing the relative location of the apparatus as described in the foregoing pages. The building should be in the form of a cross with a great central rotunda.

Summary of sugar factories in Austria-Hungary.

Description.	Bohemia.	Moravia.	Silesia.	Lower Austria.	Galicia.	Hungary.	Total.
Sugar factories:							
Working	138	50	9	3	1	14	215
Not working	7	....	....	....	....	4	11
Refineries:							
Working	10	4	1	....	....	....	15
Not working	....	....	....	....	....	....	....
Total	155	54	10	3	1	18	242
Sap extraction:							
By diffusion	138	50	9	3	1	14	215
By pressing	....	....	....	....	....	....	....
Production:							
Only raw sugar	120	33	5	1	....	4	162
Raw sugar and white goods	20	17	3	2	1	8	51
Only white goods	8	4	1	....	....	....	13
Only pilé	1	....	....	....	....	2	3

JOHN B. HAWES,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Reichenberg, November 8, 1889.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DANISH SWINE AND PORK IN ENGLAND.

REPORT BY CONSUL RYDER, OF COPENHAGEN.

The opening up of the sea route from Esbjerg to Hull has been of great benefit to this country, and especially to the interests of the agricultural community of Jutland. It has largely contributed towards bringing Danish pork more prominently into notice in the English markets and relieving the country from its second-class qualities of this article and its large, fat swine, which are now sold in Hull on very satisfactory terms. That such is actually the case is plainly shown from the fact that 75 per cent. of the swine now sent to Hull is made up from these classes; and if these could have been profitably disposed of to the home slaughter establishments this would doubtless have been done in preference to the more uncertain results from sales in foreign markets.

Great, overfed swine were largely represented, especially in the first months of the new line's existence. This is easy of explanation. Germany was then closed against the entry of these animals, and the comparatively few slaughter-houses then in existence could or would not pay sufficiently high prices. With the increase of the number of these slaughter establishments this has, however, by degrees been regulating itself. A few small, half-fattened pigs of about 150 pounds live weight have been sent over, but these would appear to have generally yielded disappointing results to the senders, for, although the prices obtained were good (about 1 cent per pound of slaughtered weight above the prices for large, fat swine), it was not sufficiently taken into consideration that the cost of transport of a small pig was the same as for a large one; also, that, while in the transport and slaughtering of the first named there would be a waste of nearly 30 per cent., in the latter it would only be of about 20, which would greatly affect the net prices. This is also shown by the dealings of the English pig traders who come over to this country to make their own purchases. They confine themselves almost exclusively to the purchase of the large, fat swine. It has frequently been remarked by the English dealers that the Danish swine in respect to quality were superior to the English, and that if they were only allowed access to the open market, instead of being subjected, as at present, to compulsory slaughtering at the place of landing, this would soon be made evident in the prices. The Danish swine, they say, are firmer in flesh and weigh better (by which it is meant that there is less waste in slaughtering), keep fresh longer after slaughtering, especially in warm weather, which is of the greatest importance, inasmuch as the carcasses have frequently to be sent many miles inland by rail in their fresh state. Supposing the quality of the Danish swine really to be superior to the English, the greatest task which has now to be taken seriously in hand by the Danish slaughter establishments is that of raising the character of the Danish pork to a similar position as that held by first-class Danish butter in the English markets. To attain these ends a mode of salting, curing, etc., similar to that pursued in England must be adopted; and it should be borne in mind by the Danish pork producers that they have still much to learn in this respect. For the Hull market it would appear that the swine should be of certain size and weight, so that they can bear the current expenses of transport. The quality will also play a prominent part. Two swine of equal weight often show a difference of 1 to 1½ cents per pound live weight; and pigs to obtain the highest net price and to be considered of model form should weigh 250 pounds live weight, rather more than less; they should also be long, fleshy animals, with fine head and good limbs. The hog should be allowed to grow large and lengthy before fattening is commenced, etc. The most serviceable and remunerative pig for export purposes is found to be one of medium age and of the before-mentioned weight. It has also been shown, whenever the fattening has not been commenced too early, that the fat will be deposited more in the belly region, internally and between the muscles, which is desirable to meet the markets' demands. A crossing of the home breeds with the white Yorkshire swine is also strongly recommended to the attention of the Danish swine breeders.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, December 7, 1889.

COMPRESSED AIR TRAM-WAY MOTORS.

REPORT BY CONSUL-GENERAL RATHBONE, OF PARIS.

The many advantages of this system have been fully proved by over two years' experience on the Nogentais tram-way, near Paris, and to start with I will enumerate these advantages:

(1) The motor does not emit smoke or hot gases, and is almost noiseless.

(2) A greater speed is attained than with horses where necessary.

(3) A special track or overhead appliance is unnecessary.

(4) Being very light it can be easily handled on steep grades.

(5) Simple in form, it does not frighten horses; the machinery on the front platform is almost invisible from outside.

(6) A possible explosion of air reservoirs is less dangerous than of steam or superheated water.

(7) Maintenance in repair is very simple.

(8) Only one person is necessary for managing the machinery, and he is not necessarily a skilled engineer.

(9) In crowded days or times of day the number of passenger places may be easily augmented by the addition of one or even two tenders or ordinary cars, without a motor, thus making a short train.

The principle of the system is very simple. Air is compressed to 40 or 45 atmospheres; the reservoirs of the motor are charged at this pressure;

the air to be used is reduced to a pressure of 5 to 10 atmospheres, and at the same time heated to a high temperature and charged with moisture in a vessel called the heater (*vouillotte*); from there it passes to a double expansion engine, where it acts like steam in moving a piston-rod.

The running expense of this motor per kilometer has proved:

	Francs.
Charging and running	0.2079
Depreciation of machinery	0.1233
Depreciation of car	0.236
Total	0.3076

This is 6 cents per kilometer, or 9½ cents per mile. Including all expenses, interest on track, etc., the cost of each car making 84 kilometers per day is 52.92 francs. The cost per day of a Paris omnibus in the same way is 106.57 francs, but the omnibus runs 90.7 kilometers and seats fifty people. Since the Mékarski tram-car seats only thirty-eight people, the proportionate expense for the same distance and the same number of people would be

$$52.92 \times \frac{90.7}{84} \times \frac{50}{38} = 75.18 \text{ francs.}$$

Therefore, the saving in this tram system is nearly 30 per cent.

The cost of the different parts of the Nogentais tram-way is as follows:

	Francs.	
Automobile	16,000 =	$3,200
Extra or tender cars	12,000 =	2,400
Reservoirs for accumulation, containing 1,250 liters	1,250 =	250
Compression pumps and engines	17,500 =	3,500
Tubular boilers, 30 square meters surface, 327 square feet	8,000 =	1,600

The weight of tram is, when empty, 7,500 kilograms (8¼ tons), and 10,300 kilograms (11⅓ tons) with forty passengers.

The co-efficient of friction, ordinarily 17 to 12 per cent. on tram-ways, goes occasionally down as low as 10 per cent., or even 8 per cent. However, by the use of sand, for which there is an arrangement, a friction of 15 per cent. can always be depended upon.

The steepest grades on the line are 0.045 and 0.052. At one place the grade is 0.047 on an average for 290 yards. These steep grades are only justified by the absolute impossibility of changing the profile of the streets themselves.

The minimum radius of curvature on the line is 40 meters (133 feet). The car is designed to go around a curve of 35 meters (116 feet), however, without difficulty.

The resistance on such heavy grades, allowing for both friction and inclination, is 55 kilograms per 1,000 (110 pounds per ton). An empty motor can therefore draw up this incline—

$$\frac{7,500 \times .15}{.055} = 20,500 \text{ kilograms;}$$

that is, 20,500—7,500=13,000 kilograms besides itself. In other words, it is capable, easily, of drawing two extra carriages of 6,000 kilograms

(6½ tons) gross weight each (Exhibit I). If the motor is full, the extra friction will admit of its drawing proportionally more—15 tons at least. This doubling or tripling the carrying capacity is very advantageous, because it does not add to the number of employés working, and very little more air is consumed.

Below is shown the amount of air used per unit of distance:

The reservoirs of compressed air are separated in two sections—the battery and the reserve; on leaving the station both of these are charged with a pressure of about 40 kilograms per square centimeter (40 atmospheres). After the complete run, that is, 12 kilometers, the pressure of the battery is diminished by 26 atmospheres, and that of the reserve by 8. As each atmosphere of pressure corresponds to 2.5 kilograms of air in the battery, and to 0.8 in the reserve, the total weight of air used is $26 \times 2.5 + 8 \times .8 = 71.4$ kilograms, or about 6 kilograms of air per kilometer (21 pounds per mile). With an additional carriage in connection, it has been found that only 1.5 kilograms per kilometer (5¼ pounds per mile) extra, is required. Thus in doubling the number of places the loss of air is raised only 25 per cent.

In comparing this system with the alternative of an ordinary small-sized steam-locomotive, M. Mékarski shows that in an ordinary economical locomotive 2.5 kilograms (5.5 pounds) of coal are used per horse-power; also that the proportion of work to force generated in a compressed air motor ought to be at least 40 per cent., in order that it shall be as economical as a steam-locomotive. This state of affairs could be realized by using a stationary engine using 1 kilogram (2.2 pounds) of coal per horse-power, an object easily attained.

To compress 1 kilogram of air in a reservoir at a pressure of 50 atmospheres, theoretically 62,400 kilogram meters are used if the compression is adiabatic, or 32,950 if it is isothermal. Practically, the operation is effected at intermediate conditions, and needs about 48,000 kilogram meters of work. The lost work in this operation may be calculated at 25 per cent. of this, or at 12,000 kilogram meters, making the total work necessary 60,000. On the other hand, 1 kilogram of air at a pressure of 10 atmospheres, the pressure at which the air is used, occupies a volume of 119 liters (31.44 gallons), and can furnish, with an expansion of 6 volumes, a force of 28,900 kilogram meters. Reducing this to 24,000 to allow for lost work, it is seen that the available work is $\frac{24000}{60000}$, or 40 per cent.

In this calculation the pressures are somewhat higher than are used in the tram-cars, for it was made in designing a larger motor; nevertheless, the proportion of pressures remains the same, and the result compares exactly with the practical results shown in working the tram-way at Vincennes.

It might be added that the coal used for the large stationary engine is of a very inferior quality and price to that ordinarily used in small locomotives used for the same purpose, and that they, in their turn, use more coal in comparison to their power than is used in regular railroad service. The high pressure at which the air reservoirs of the "automobile" are charged is the result of the necessity to compress a sufficient weight of air in a moderate compass.

As regards the carriage or passenger part of the car, this is exactly similar to all French tram-cars, having an interior part and an upper part, or "imperial." This carriage is 8 meters (26 feet 3 inches) long by 2.1 meters (6 feet 11 inches) wide. The steps at the back are arranged to make a connection with the extra car when attached. There is also here a pipe connecting with air-brakes in the last car (see Exhibit II). Parallel to the axles of the wheels of the tram are placed the air reservoirs, nine in number, divided in two groups, intended to carry the compressed air. These are made of steel 12 millimeters (one-half inch) thick, and are tested for 60 atmospheres. The first of these two groups is composed of six reservoirs, having a total volume of 2,030 liters (536¼ gallons); the second group of the remaining three reservoirs, called the reserve, contains 1,066 liters (281½ gallons); the total capacity, therefore, is 3,106 liters (817¾ gallons). This volume of air at 45 atmospheres weighs 170 kilograms, or 380 pounds. The battery and the reserve are made independent, in order that the reserve may always be kept at a high pressure, so that an extra powerful effort may be given to the engines in case of need, even at the end of the trip. The different reservoirs of each group are connected by a strong and permanent system of piping. Both groups send their air by pipes to the lower part of an apparatus called the heater. This apparatus is the most characteristic of the Mékarski system; and the need of some such appliance will be directly seen from the following calculation:

In considering the expansion of a gas, the proportion of the volumes before and after expansion being $\frac{V_0}{V_1}$, and the initial temperature being t_0, the temperature at the end of the expansion is

$$\frac{273+t_1}{273+t_0}=\left(\frac{V_0}{V_1}\right)^{.41}$$

In the present case $\frac{V_0}{V_1}$ being one-sixth, we find

$$\frac{273+t_1}{273+t_0}=.48.$$

If, by example, air is introduced in the cylinders at the temperature of 15° C. (59° F.), it would go out theoretically at —135° C. (—211° F.). Outside of the necessity of preventing the moisture in the expanding air from freezing up the cylinder-valves, etc., we find it advantageous to have the initial temperature as high as possible. For the work done is given by the expression

$$T_m=(273+t_0)[29.28(1-\frac{P^1}{KP_0})+73.3(1-K^{.41})]$$

In this expression, T_m is the work effected, t_0 the initial temperature in degrees centigrade, P^1 the resisting pressure, P_0 the initial pressure, and K is the proportion $\frac{V_0}{V_1}$. Therefore, $(273+t_0)$, or, in other words, the absolute temperature, should be made as large as possible.

If the value for which the temperature of the escaping air is to be 15° C. (59° F.), it is found that the initial temperature should be 327° C. (620° F.), as calculated for theoretically dry air. To avoid any such inconvenience in using air at such a high temperature, and also the necessity in such a case of having some sort of a furnace, the principle in this system is to saturate the air with moisture at a much lower temperature, taking this moisture from the hot water inside the "heater." The vapor in the air during the expansion is partially condensed, and this part, giving up its latent heat to the air, acts to greatly moderate the decrease in temperature.

The heater (see Exhibit III) is in form a cylindrical reservoir placed vertically on the forward platform of the train. It also is made of steel, and contains 200 liters (53 gallons) of water under pressure and at a temperature at the outset of 155° C. (311° F.). The air passes through the water in the heater in bubbles and becomes heated, and at the same time saturated with water. It collects here in the top part of this cylinder, which serves in the machine the purpose of a steam-dome in a boiler. This part contains a curved piece of sheet-iron which forms a sort of splasher.

The regulator of the pressure ("détendeur," see exhibit IV), which the engineer maneuvers to change the pressure of the air going to the cylinders, is on top of the heater. It is a very ingenious apparatus serving to expand the air to the pressure from which it is found in the reservoirs to that at which it is to be used in the cylinders. This pressure, normally 4 or 5 atmospheres, on up grades is sometimes increased to 15, and on down grades reduced to nothing, the supply cut off, and the tram left entirely to run by gravity. This regulator is composed of two brass chambers superposed and separated by a rubber diaphragm. The first forms a hydraulic press, in which a piston descending compresses water in an annular space where a small quantity of air is confined. This cushion of air is compressed and plays the part of a spring, by which the necessary tension is easily given to the water.

The air, being heated and saturated, to pass to the cylinders goes through an orifice of the lower chamber of the regulator in which a conical valve plays. This valve is arranged in such a way that it closes by the effect of the pressure of the air in the heater. It only opens when a pressure is made on its upper face acting on the diaphragm of the little hydraulic press. It is seen that the first effect of the pressure in the hydraulic press is to open the valve and admit air. As soon as the pressure in the lower chamber gets to be as great as that in the upper, the pressures on the two sides of the diaphragm being equal, the valve closes by the pressure from below. This common pressure, which can be so easily regulated, is the pressure fed to the cylinders. This pressure, which remains automatically constant as long as the wheel moving the press is untouched, can be varied at will.

The air now passes to the cylinders, which are arranged in sets of two, each pair forming a tandem double expansion engine. The two cylinders of a set are of different diameters and are cast in one piece. The rod of the two pistons passes through the cylinder head in a spring metallic stuffingbox. The air is admitted to both cylinders in succession by the means of the same compound slide-valve. The admission to the smaller cylinder is cut off at about two-thirds the stroke. This air is now passed into the larger cylinder, whose volume is four times larger than the first. The total proportion of expansion, therefore, is about 6 volumes. Such an expansion can not be produced with the steam in locomotives, especially where great promptitude in starting is required.

Both factors governing the tractive power can be changed—the cut-off and the pressure of air—and consequently this system is one that can be most perfectly controlled.

Since, however, from this large expansion it might result that with an initial pressure and cut-off the expansion would be to a pressure less than 1 atmosphere, and a negative work would ensue, there has been placed at the lower part of the cylinder an air-valve allowing outside air to enter in such an emergency.

Exhibits V and VI show a cylinder rather larger than the one in use on this tram-way, designed for a full-sized locomotive. It, however, shows the proper proportion and arrangement of the parts.

The speed, so easily varied, can be made as much as 65 kilometers (40 miles) an hour if necessary. The legal limit of speed on the tram-way is 20 kilometers (12½ miles).

The arrangement of the machine, in which the space inside the wheels and under the car is entirely taken up by the reservoirs, obliges the cylinders and their dependent parts to be placed outside. Their protection, however, is insured by a sheet-iron boxing, which, with its closed doors, conceals every thing under the car. In order that no difficulty in cold weather from the collecting and freezing of the moisture in the air may take place, the air is led from the exhaust valves of the cylinder by a pipe out of the box and under the car. So far the coldest weather has not had any disagreeable result in any part of the machinery.

The engineer is placed on the front platform of the tram, which is railed off from the public, and manages the regulator. Two manometers are placed on top of the heater, and indicate the pressures in the battery and the reserve. A third manometer gives him the pressure in the regulator and the cylinders. All the motions of maneuvering the machine are extremely simple; there is a lever to change the action of the slide-valve, thus giving more or less cut-off or changing the direction of the motion; there is a lever to apply the air-brakes; another to cut off the supply of air to the cylinders, and a small cylinder in which, when the piston is pressed down, the escaping air sounds a horn.

The two pairs of wheels are coupled by a connecting rod; thus both act as drivers and the whole weight of the car is made use of in propelling itself.

The axles being only 1.6 meters (5 feet 3¼ inches) apart, they allow the car to go around the shortest curves without difficulty.

The tram, when charged with air, could make on an ordinary grading a run of over 20 kilometers (12½ miles) without recharging, but on this track only 14 kilometers (9 miles) can be made, on account of the heavy grades and the unusual obstructions in the way of dirt, etc. The mean consumption of air on this line is about 10 kilograms per kilometer (35 pounds per mile) where the grade is the heaviest; where the grade is only 0.02 only 7 kilograms per kilometer (24 pounds per mile) are necessary.

The machinery and apparatus for compressing the air is in two sections at two different stations. The larger at La Maltournée (the view in exhibit VII shows this station with a train of two cars in front), and the other at Vincennes.

The station at La Maltournée has—

Two tubular boilers of 60 meters (653½ square feet) heating surface apiece in the boiler house.

In the engine room, four 35 horse-power steam-engines, each working a large air compressor. (Exhibit VIII shows drawing of the air compressor and Exhibit IX shows a perspective view of two of them.)

A reservoir room containing twelve reservoirs of air at 45 atmospheres of 1,250 liters (330.2 gallons) capacity, and intended to contain the air compressed by the pumps in the intervals between the charging of the cars.

Reservoirs of water and a feeding pump for the boilers.

A workshop containing an engine, lathes, punching machines, blacksmith's shop, etc.

An electric dynamo (Gerard) for incandescent lighting.

A charging-room for the tram-cars.

Stables for the rolling stock.

Offices for employés, ticket office, waiting-room, etc.

Coal yards and yards for road materials.

The operation of charging the tram reservoirs is made in a special room called the charging-room. The reservoirs should hold, before the start, 3,106 liters of air, and the heater 200 liters of water at a temperature of 155° C. The air and the steam which heats the water are brought to the charging-room by pipes—copper for the steam and iron for the air. These pipes end in orifices provided with screw-cocks. The water in the heater is heated by passing the steam from the steam-pipe through it, and it is only refilled with water when the heater is emptied for repairs. For the operation of charging, the cars are brought opposite the cocks, and by means of connecting pipes the cocks are put in connection with corresponding cocks in the car. The duration of charging is about fifteen minutes. (Exhibit X shows the end of the car in connection with the cocks of the charging-room.) It has been found possible, however, in the case of prolonged runs, to have air pipes brought to the side of the track, and a partial refilling of the reservoirs effected while tickets are being taken, etc.; this takes only about three minutes.

There are two parts of the Nogentais tram-way that might be called the main line and the branch; main line, 9,580 meters (31,432 feet); branch line, 2,108 meters (9,916 feet); total length, 11,688 meters (38,348 feet).

On this line the track varies in its position; 6,550 meters (21,290 feet) placed on the sidewalk and 5,138 meters (17,060 feet) placed in the road or carriage way. The gauge, which is standard (4 feet 8½ inches), is increased by one-fourth of an inch on curves. The track set in the sidewalk is made of Vignolles or T-rails of 8 meters length and weighing 20.1875 kilograms the running meter (40 pounds per yard), placed on oak ties of 2.2 × 0.14 × 0.1 meters (6 feet 3 inches × 5½ inches × 4 inches) dimensions, set apart 0.875 meter (34 inches), center to center. These ties are cut in such a way as to give a cant to the rail of 1 in 20. The rails are fastened to the ties by iron screw spikes, and are joined to each other by ordinary fish-plates and and four bolts with Trover nut-locks. The fishing of the rails is made over bridge joints, the ties being at this point 0.5 meter (20 inches) apart, center to center. The joints are not opposite each other, one being 0.5 meter (20 inches) in advance of the other.

The ballast here is 0.35 to 0.4 meter (14 to 16 inches) thick; 0.15 to 0.2 meter (5 to 7 inches) of this is underneath the ties.

The part of the track placed in the road is of a different pattern. It is made of rails and flange-guards of steel 8 meters (26 feet 3 inches) long, which are exactly similar in section, and in each of which one side of the flange is narrower than the other. These weigh 17.925 kilograms the running meter (36½ pounds per yard), and are joined by fish-plates. The rails and flange-guards are separated by a groove of 0.029 meter (1⅛ inches) on tangents and 0.035 meter (1½ inches) on curves. They are supported and held together on cast-iron chairs by bolts. These chairs are 0.25 meter (10 inches) high, and their heads form jaws in which the foot of the rail is held at the proper angle of 1:20. The chairs in their turn are fastened by iron screw spikes on oak ties of the same dimensions as before, set, however, 1 meter (40 inches), center to center. A number of cast-iron cross-bars, holding the foot of the rail, assure the firmness of the gauge. The fishing of the rail joints and the joints of the flange-guards is made between the ties, as in the other system, the ties being brought to within half a meter (20 inches) for the purpose. The joint of the first rail is half a meter (20 inches) in advance of that of the second, and the joint of the first flange-guard is opposite that of the second rail, and *vice versa*. These ties rest on a bed of ballast 0.05 to 0.15 meter (2 to 5 inches) thick, and this ballast is leveled up to the top of the ties.

The track in the road is almost all paved; the height of the chairs allows a bed of sand 5 to 9 centimeters (2 to 3 inches) deep to be placed between the lower surface of the paving stones, which are 0.2 meter (7 inches) deep, and the top of the ties. Over a length of 560 meters (620 yards) of this part of the track the rails are set in chairs 0.138 meter (5½ inches) high and 0.14 × 0.2 meter (5½ × 8 inches) base, weighing 9¼ kilograms (20½ pounds) and resting on a bed of concrete of 0.15 meter (5 inches) thick. This is paved with stones set in Portland cement. In this portion this special form was used on account of the shallow space allowed in crossing bridges, etc.

Side tracks are established at various points to allow of passing of the trams going in opposite directions. The minimum distance apart in this case of the two tracks is 1½ meters (5 feet), allowing a clear separation of the two cars of 0.6 meter (2 feet).

The switches (Delettrez system) are automatic, allowing the car going towards the switch only to take the right-hand track, but by a spring the car, either on the side track or the main line, always keeps to the rails, moving the tongue of the frog. There are turn-tables at intervals, by which the car can be turned 90° or 180° by hand. Their diameter is 2.8 meters (9 feet).

The following is an approximate estimate of the costs of the different types of track:

(*a*) Vignolles rails on the side track: Cost per meter, 20.53 francs ($4.11); cost per yard, $3.70.

(*b*) Vignolles rails, with special curbstone and sidewalks: Cost per meter, 29.87 francs ($5.98); cost per yard, $5.40.

(*c*) Track on the road paved between the rails and half a meter on each side: Cost per meter, 62.54 francs ($12.51); cost per yard, $11.27.

(*d*) Track on the already paved road: Cost per meter, 33.23 francs ($6.65); cost per yard, $6.

(*e*) Track on macadamized road: Cost per meter, 35.68 francs ($7.15); cost per yard, $6.44.

(*f*) Track on a bed of concrete 15 meters thick, with paving set in Portland cement: Cost per meter, 69.02 francs ($13.81); cost per yard, $12.44.

Of course, in these figures account has only been taken of the cost of the track proper and of the prices of materials and of labor. Some other expenses regarding the locality have not been taken account of, such as a payment of $6,400 for bridge restoration, costs of grading and straightening roads, moving gas and water pipes, moving trees in the Bois de Vincennes, etc. These extra expenses added more than a fifth to the regular cost of the road.

J. L. RATHBONE,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Paris, December 12, 1889.

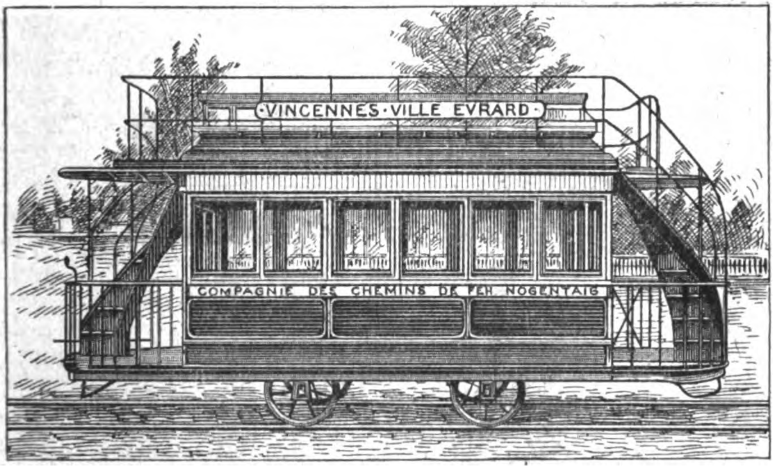
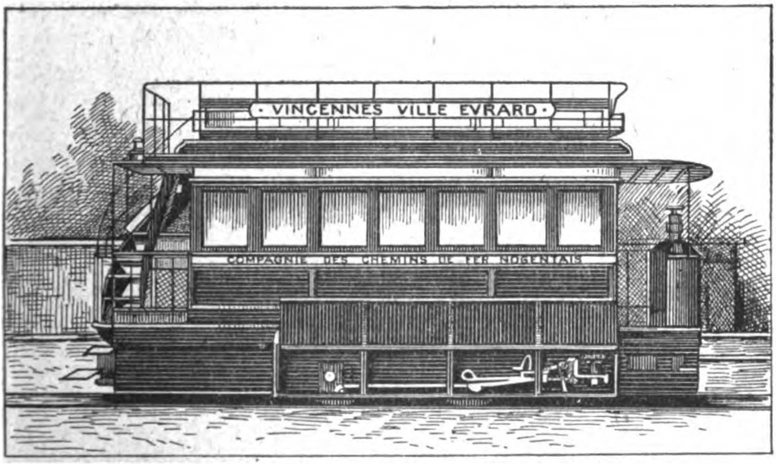

·VINCENNES·VILLE EVRARD·
COMPAGNIE DES CHEMINS DE FER NOGENTAIS

Exhibit I.—Tender car.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COMPAGNIE DES CHEMINS DE FER NOGENTAIS

Exhibit II.—Automobile.

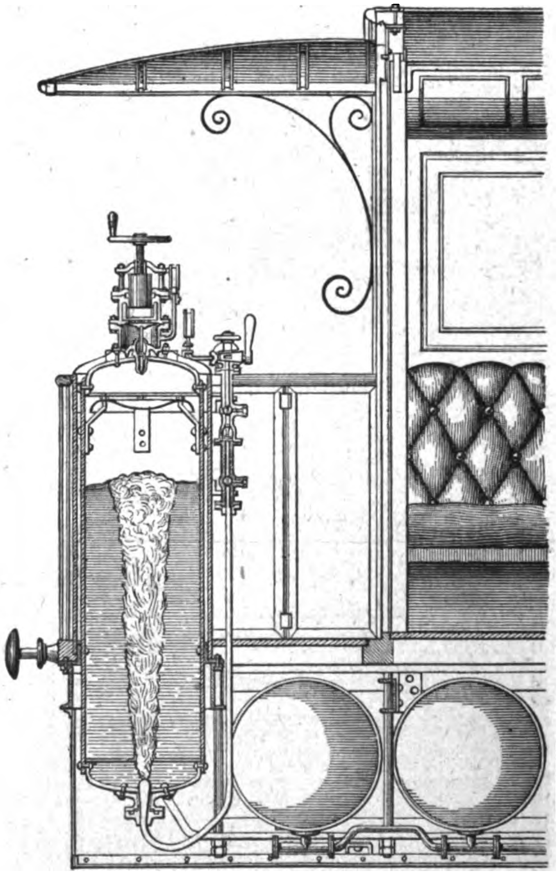


Exhibit 111.—Section of end of car showing heater.

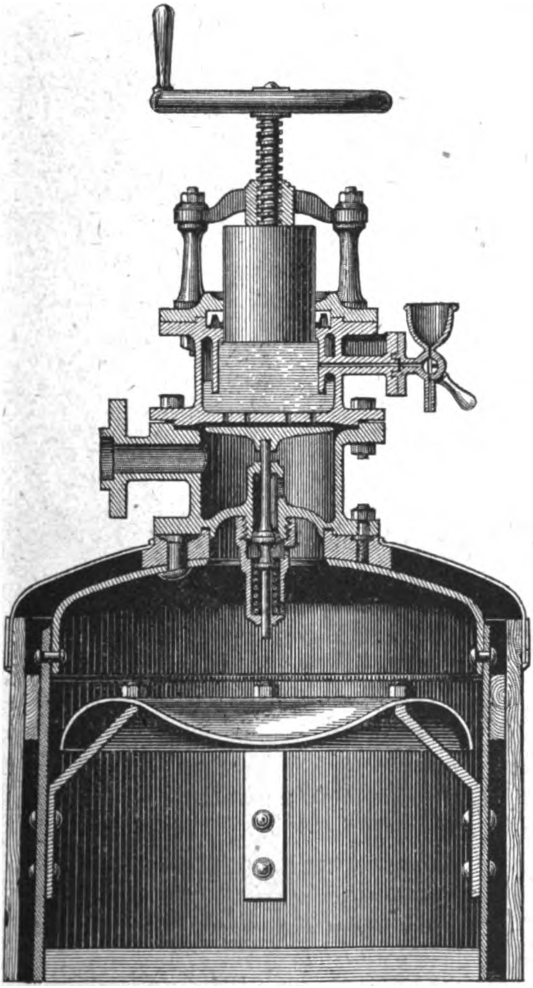


Exhibit IV.—Regulator.

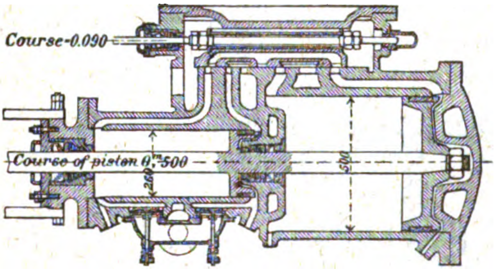


Exhibit V.—Cylinder (longitudinal section).

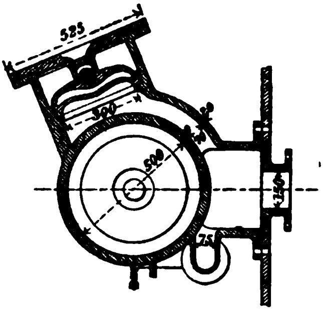


Exhibit VI.—Cylinder (transverse section).

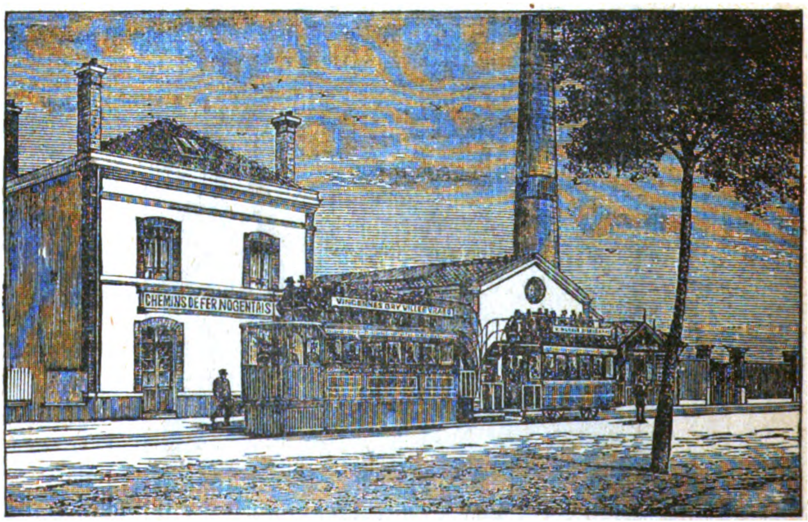
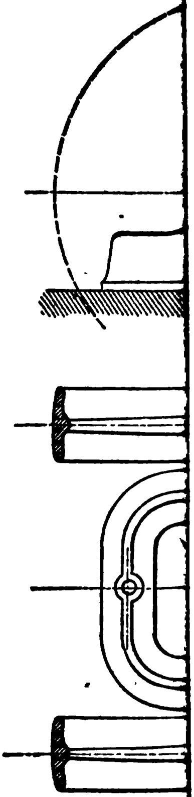


Exhibit VII.—Train of two cars in front of station La Maltournée.



Consular Reports

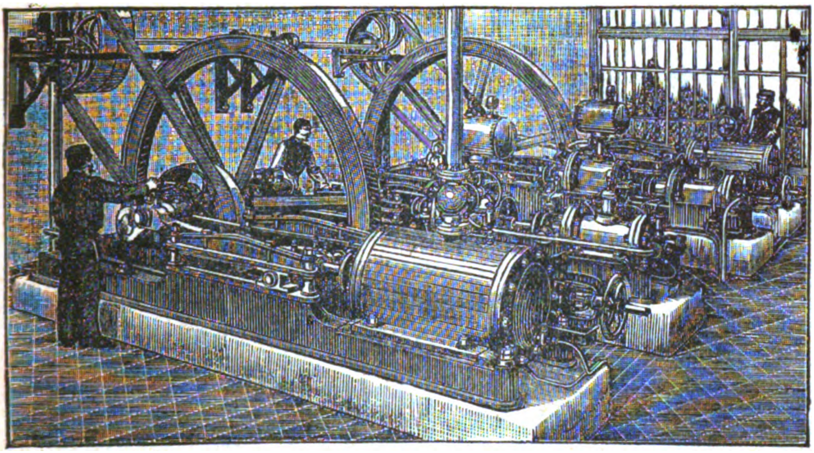


Exhibit IX.— Perspective view of two compressors.

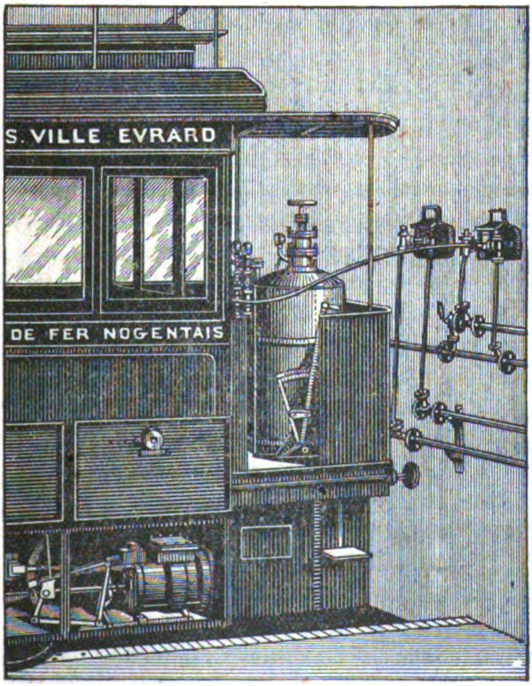


Exhibit X.— Train in charging-room.

COMPRESSED AIR LOCOMOTIVES.

REPORT BY CONSUL-GENERAL RATHBONE, OF PARIS, ON THE MÉKARSKI SYSTEM OF COMPRESSED AIR APPLIED TO LOCOMOTIVES.

A drawing is appended, showing the design for a motor or locomotive to draw a train, as on a metropolitan railroad, either tunnel or elevated.

For this purpose ordinary locomotives, using coal and steam, have great disadvantages, especially where there are tunnels. One of the solutions of this difficulty proposed by M. Mékarski is the use of compressed air. This would do away with all natural difficulties, and, according to the experience on the Nantes and Vincennes tram-ways, in France, will not be more expensive than steam.

M. Mékarski shows that with a charged pressure of 50 atmospheres air-locomotives might be constructed of an external form, similar somewhat to steam-locomotives, without tenders or smoke-stacks. The air-reservoirs occupy on the frame the place of the boiler without obstructing the engineer's view. He has designed, with this idea, the two types of locomotive given in the plate, showing the side elevations of each and a transverse section. The first type in working order weighs 40,000 kilograms (44 tons). It carries three large cylinders charged each with compressed air. The second model is composed of two smaller carriages coupled back to back like a locomotive to its tender. The two form a locomotive of 50,000 kilograms (55 tons).

TYPE OF FIFTY-FIVE TONS.

This locomotive is designed with a view to develop a tractive power of 6,000 kilograms (13,228 pounds) and to run around curves of 150 meters (492 feet).

It is composed of two separate machines mounted on two coupled pairs of driving-wheels each. The reservoirs of compressed air are mounted on the two trucks, which are so arranged that a central cab, where the engineer is placed, is formed by the joined ends. The view from this cab is in no way obstructed by the reservoirs in either direction, and they are entirely hidden under a covering of sheet-iron.

The total length of the truck from end to end, including the buffers, is 14.4 meters (47 feet 3 inches); the greatest width is 3.2 meters (10 feet 6 inches), and greatest height above rails 1.3 meters (4 feet 3 inches). The diameters of the cylinders are, respectively, 0.26 meter (10¼ inches) and 0.5 meter (19⅝ inches); the common stroke is half a meter (20 inches). Each of the four reservoirs is 5.2 meters (17 feet 1 inch) long. Three of them have an internal diameter of 1 meter (39⅜ inches); the fourth, smaller, is only 0.6 meter (23⅝ inches) in diameter. The reservoirs are made of soft steel 20 millimeters (three-fourths of an inch) thick for the large, and 12 millimeters (half an inch) for the smaller one. The total capacity of

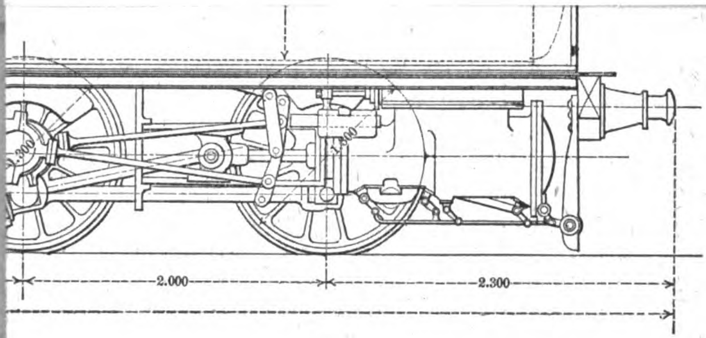
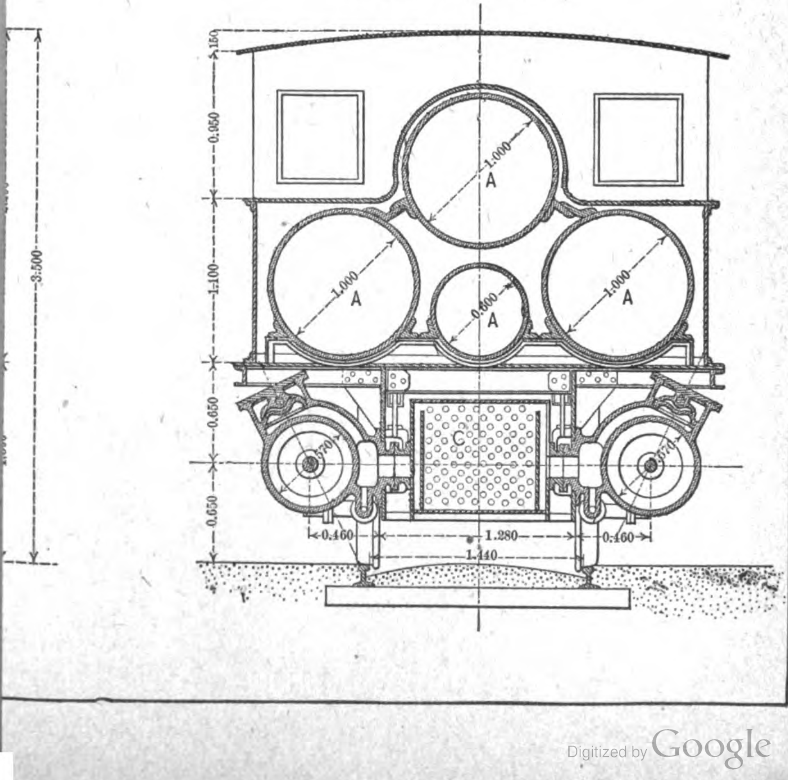


Fig. 3.—FORTY TON ENGINE.
TRANSVERSE VIEW.



one battery is 13 cubic meters (460 cubic feet); the weight of air compressed in them would be 800 kilograms (1,764 pounds), or a total of 1,600 kilograms (3,528 pounds). Each battery weighs about 10,500 kilograms (11½ tons).

There is a heater and a regulator on each part of the locomotive, but they are so arranged that by maneuvering one of them all the cylinders of both machines will be similarly affected. Besides the hot water in the two heaters proper, there is an extra supply of hot water in two reservoirs under each part of the cab—four reservoirs in all which communicate with the heaters. The total capacity of hot water in each machine would, therefore, be 1,000 kilograms (2,205 pounds).

The air in this machine, after being used, passes through an arrangement which might be called a condenser. This is used in order that no moisture, even in minute quantities, might be deposited in the tunnels. It acts simply to collect the moisture in the exhaust air, and is in form similar to a tubular condenser for a steam-engine.

TYPE OF FORTY-FOUR TONS.

There is little to be said of this machine, after having the preceding description, since it has very much the same characteristics. It is formed of a single frame, mounted on three pairs of driving-wheels, all coupled. The reservoirs are of the same diameter as in the 55-ton type, and are similarly placed, only varying in their length.

It might be added that, no fireman being needed for these locomotives, a great saving in wages is effected, but this is nearly made up for in the extra labor, capital, and wear incurred in having the extra stationary plant.

J. L. RATHBONE,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Paris, December 12, 1889.

COMPRESSED AIR MOTOR.

REPORT BY CONSUL SHACKELFORD, OF NANTES.

The invention of M. Mékarski is so simple that there is little left to add to my previous report. But having received numerous letters asking for further information in reference to this system, I beg to inclose a supplementary report from information kindly given me by M. Mékarski.

THE GRADE.

The grade in the road-bed at Nantes is about 25 feet per mile, but very gradual. In the line in the suburbs of Paris the grade is 31 feet per mile. The grade, however, presents no difficulty in the regular running of the cars, though the ascent in some parts of the road is quite abrupt. At Nantes there is sufficient power in the motors in general use to attach a second ordinary car when necessary, the two carrying one hundred to one hundred and twenty passengers.

THE TRACK.

No change will be necessary in the tracks now in use in the United States. The rails here are heavier, but the cars, though comfortable, are clumsy and certainly double the weight of those in our country.

COST OF RUNNING.

The cost of running a car daily, for a 60-mile run, is: For coal and oil, $1.20; wages for operator and conductor (New York prices), $3 to $3.50; repairs to cars, $1.80; total, $6.50 per day; per mile run, 10 to 11 cents.

THE MÉKARSKI COMPRESSED AIR MOTOR.

The length of the car is the same as those in use in the Broadway line, New York.

Details.—Capacity of air reservoirs—first battery, 25 cubic feet; second battery, 45 cubic feet; total, 70 cubic feet; normal pressure at charging, 600 pounds per square inch; weight of air stored—first battery, 80 pounds; second battery, 144 pounds; total, 224 pounds; weight of superheated water, 224 pounds; initial temperature of hot water, 320° F.; diameter of motor cylinder, 5 inches; length of piston stroke, 8 inches; consumption of air, per mile run, 20 pounds; speed, 8 miles per hour; length of run, 11 miles.

The car is one step higher from the street than the ordinary cars in use. This is necessary for the space required for the reservoirs, and is really of little importance, as the stopping and starting are almost instantaneous.

ADVANTAGES OF THE SYSTEM.

(1) No change of rails necessary.

(2) Its adoption involves no increase of capital, as the sale of horses and other property will cover the expense of new motors.

(3) Economy in operating expenses being reduced from 30 to 35 per cent. less than the use of horses.

(4) Economy of space, no stables being required.

(5) The simplicity of mechanism not rendering the employment of trained workmen necessary.

In reply to my question to an engineer sent to Nantes to examine the system, "What do you think of the compressed air motor?" the answer was, "For economy, absolute safety, and ready management it is the best motor now known."

H. A. SHACKELFORD,
Consul,

UNITED STATES CONSULATE,
Nantes, December 5, 1889.

GERMAN-BRAZILIAN COMMERCIAL RELATIONS.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

German business men throughout the Empire have their eyes centered on Brazil as one of the world's greatest consumers of European products. The change from a kingdom to a republic, think men here, will not be likely to increase the once more than friendly commercial relations which have existed. Breaches in the walls built up along the roads by which Germans were wont to get in their goods, and gaps in all those of other countries, are now more than probable. "This is all the more to be regretted," say merchants, "inasmuch as the relations so long and carefully built up at the expense of much effort, time, and money will be disarranged, in places at least. Once our competitors get in where we were supreme, years will be required to displace them." This fact may in some way account for the quiet acquiescing spirit with which Europe has looked on while an empire, the only one in all America, went down and out to make room for the more popular form of government—a republic. Germany only desires as speedy a solution of affairs as is possible, with good, steady, and secure government and business relations. Recent years have seen the German trade with Brazil take on gigantic proportions, *i. e.*, compared with earlier years, when that trade was held almost exclusively by England and France. When we compare Germany's exports to Brazil during the last decade with those from France and England, we find the former steadily and rapidly increasing while that of both the others steadily, and sometimes rapidly, decreased.

Year.	Exports to Brazil from—		
	Germany.	Great Britain.	France.
	Marks.		*Francs.*
1880	9,750,000	£6,680,000	76,200,000
1881	10,260,000	6,660,000	74,900,000
1882	12,180,000	6,630,000	62,100,000
1883	15,610,000	6,650,000	66,600,000
1884	16,220,000	6,470,000	62,500,000
1885	13,240,000	5,350,000	54,700,000
1886	16,940,000	6,070,000	57,200,000
1887	15,750,000	5,820,000	59,800,000

NOTE.—1 mark=23.8 cents; £1=$4.86,6; 1 franc=19.3 cents.

During these years the movement making changes in the relations of all three gave somewhat uncertain backward and forward bounds; the result at the end of 1887 expressed in per cent. puts Germany 61.5 per cent. ahead of where she stood in 1880, and England 13 per cent. and France 21.5 per cent. behind where 1880 found them. The present ratio of the German to the English and to the French exports to Brazil is against Germany in both cases; but in the above table no account is taken of the immense quantities of goods sent from German inland cities to the free ports of Bremen and Hamburg thence to be shipped to Brazil. To see what Germany did send in those years we must add Bremen and Hamburg's figures—

Year.	From—	
	Bremen.	Hamburg.
	Marks.	*Kilograms.*
1880	1,615,802	44,203,300
1882	1,155,461	41,758,700
1884	1,287,617	43,585,300
1886	1,433,749	58,030,900
1888	2,026,650	71,495,400

These figures prove that German merchants, with any thing but the slowness so often put to their credit, were getting a "good grip" on the Brazilian trade.

The following sentiments of a leading merchant may be said to express the sentiment of commercial Germany:

> Our duty now is to keep up, in spite of the changed form of Government, the same trustful business relations. What business is it of ours whether Brazil has king, kaiser, or president? Our competitors will be only too glad to mark and report any feeling, expressed or even felt, which would go to show resentment on our part that Brazil has seen fit to change its governmental form. We have gained our present very favorable foot-hold by the exercise of patience and a willingness to give Brazil in trade what it wanted. To keep up the friendly relations and rapidly growing commercial intercourse, beset as we are on all sides with clamoring competitors, will require all the tact of our business men and bankers and the diplomacy of our statesmen. There is a natural tendency for the states of America to turn towards each other; allied by the ties of common forms of government, similar hopes and destinies, they may find each in some other the natural complement of itself. Stretching through all zones, blessed with all kinds of clime, washed on thousands of miles of splendidly indented coasts by the world's greatest oceans, in a word, having in themselves all that earth offers, they may one day cut aloof from us, and, commercially speaking, live among themselves.

Such, and a hundred such, are the sentiments prevailing here in view of the late movement in Brazil.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, November 29, 1889.

Export duty on coffee.—Consul Tunstall, of San Salvador, November 27, 1889, reports that the Government of Salvador, in view of the loss sustained by the burning of the National Palace, reported in his dispatch of the 20th instant, has issued a decree levying an export duty of 1 peso (68 cents) upon every quintal (100 pounds) of coffee for the next twelve months, to create a fund to be devoted exclusively to its reconstruction.

INDUSTRIES OF THE LOIRE.

REPORT BY COMMERCIAL AGENT MALMROS, OF ST. ETIENNE.

I herewith submit a report on the principal industries of the department of the Loire for the year 1888. The report is entirely based upon official figures, which, in part, could not be forwarded at an earlier date. The values and weights are in francs and kilograms, 1 franc equals 19.3 cents, and the kilogram equals 2.205 pounds.

RIBBON TRADE.

Nature of articles.	Home consumption.	Exportation.	Total.
	Francs.	*Francs.*	*Francs.*
Black ribbon:			
Pure silk	11,493,000	8,757,000	20,250,000
Mixed with cotton	897,000	341,000	1,238,000
Colored ribbon:			
Pure silk	20,452,000	10,435,000	30,887,000
Mixed	5,513,000	4,761,000	10,274,000
Ribbons façonnés:			
With designs	7,771,000	4,521,000	12,292,000
Mixed	2,761,000	1,848,000	4,609,000
Cravats:			
Pure silk	15,000	3,000	18,000
Mixed	7,000	8,000	15,000
Velvet ribbons:			
Pure silk	111,000	7,000	118,000
Mixed	1,377,000	495,000	1,872,000
Satin back—			415,000
Pure silk	315,000	100,000	
Mixed	999,000	196,000	995,000
Braids and laces	1,896,000	1,023,000	2,919,000
Hat trimmings	1,623,000	280,000	1,903,900
Elastic ribbons	1,452,000	466,000	1,918,000
Silk piece-goods	110,000	40,000	150,000
Mixed piece-goods	370,000	1,765,000	2,135,000
Braids and laces, wool and cotton	15,000,000	10,000,000	25,000,000
Total	71,962,000	45,046,000	117,008,000

The chamber of commerce believes that the valuation made by the syndical chamber is much inferior to the reality, as the latter bases its figures on the quantity of silk which passed through the conditioning house, and which is as follows:

Silk conditioned and weighed.

Description.	Quantity.	Value.
	Kilograms.	*Francs.*
Organzines	478,156.80	29,645,721.60
Trams	484,401.21	24,442,066.55
Raw silk	258,597.26	11,378,279.44
Miscellaneous	8,466.22	465,642.10
Total	1,229,623.49	65,931,709.69

A deduction might be made from these figures for a part of the raw silk which is sent to the mills to be transformed into organzines and trams. If the chamber of commerce does not make this reduction, it arises from the fact that a great deal of the raw silk bought in Lyons, Milan, and other places does not pass through the condition house of St. Etienne, which accounts for the difference. Besides silk, a great deal of cotton and woolen thread and other matter is used at St. Etienne, and it may be calculated that the quantity of raw material employed in the industry represents about 75,000,000 francs, consequently the sum of the total production exceeds in round numbers 150,000,000. It is estimated that in general the raw material represents one-half of the cost price of a ribbon.

ARMS.

The manufacturers of arms at St. Etienne heretofore made only pistols, small carbines, shot-guns, and rifles as used by civilians. Since the year 1885 they have been permitted to manufacture military rifles, and now are commencing to produce them on a certain scale. The year 1888 has not been a prosperous year for the manufacture of arms in general; in fact, much less so than for many previous years, the number of arms controlled being greatly inferior to preceding statistics. However, a goodly number of guns are made which are not submitted to control. There exists two kinds of control, one for the barrel before it is finished and put to the stock, and the other when the gun is ready for use. This last control is not often applied, and yet is the only one which gives a guaranty to the buyers. The chamber of commerce, with a view to the public safety, intends to ask the Government to render this last control or proof obligatory.

The number of barrels proved in 1888 was as follows: Double-barrels, 39,638; single-barrels, 4,587; pistols, 1,725; revolvers, 4,396; total, 50,346.

Finished arms proved: Double-barreled guns, 2,957; single-barreled guns, 88; total, 3,045.

It is calculated that about 75,000 shot-guns, pistols, revolvers, and rifles are manufactured at St. Etienne, representing from 5,000,000 to 6,000,000 francs. It is also at St. Etienne that is situated the largest national manufactory of military arms which France possesses. This manufactory employs 12,000 workmen and turns out 2,000 Lebel guns daily, new model, 8 millimeters, with which the whole French army will soon be furnished.

COAL MINES.

The coal mines of the Loire were the first to be worked in France. Unfortunately, on account of special charges constituting a rent payable by the companies to the proprietors of the soil under which the galleries run, the price of coal is much higher than in any other place. It is for this reason that the extraction has not progressed as in the north of France and as in other countries of Europe and that of the United States. The quantity of coal extracted at present, yearly, is about 3,500,000 tons.

IRON AND STEEL FOUNDRIES.

St. Etienne and its neighborhood, which fifteen years ago produced the largest amount of wrought-iron and steel, has fallen to-day very low. Those departments which receive the ore very cheaply, especially those near the sea, have become now the great producers.

St. Etienne, however, still holds the first rank in the production of fine steel. There are about forty important foundries in the region of St. Etienne, manufacturing, principally, large arms, cannon, steel plates for men-of-war, etc. They make, also, locomotive wheels, boilers, wire, and nails. There exist, also, numerous less important workshops for the manufacture of bolts, files, locks, agricultural instruments, etc.

It is estimated that the yearly production represents, in round numbers, the sum of 70,000,000 francs.

OSCAR MALMROS,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
St. Etienne, November 19, 1889.

BELGIAN HARVEST OF 1889.

REPORT BY CONSUL PRESTON, OF LIEGE.

The Moniteur publishes a statement from which it appears that this year's harvest has been one of the most satisfactory for a long time. Although in some places the ripening of the wheat and rye was retarded by the wet weather, yet the quantity of cereals may be reported good.

Taking 100 as the mean of the harvests from 1881 to 1888, this year wheat would be 111 and rye 109.

Admitting that the same area of land is cultivated as appeared by the last general census, the production in 1889 of four grains will be as follows:

Description.	1889.	1888.
	Hectoliters.	*Hectoliters.*
Wheat	6,898,000	5,470,000
Rye	6,385,000	5,300,000
German wheat	1,890,000	1,550,000
Mixed grain	617,000	494,000
Total	15,790,000	12,814,000

The amount required for consumption is estimated at 18,000,000 hectoliters, and for industrial wants and seeding 1,900,000 hectoliters, so that 4,100,000 hectoliters will have to be imported. The most of this comes from the United States.

Barley is of good quality and average quantity. The production is estimated at 1,285,000 hectoliters.

The harvest of oats is about 10 per cent. above the average of the last eight years. The total production is 9,979,000 kilograms, taking as the basis of calculation the area planted in 1888.

Although the potato disease broke out in several parts of the country, the crop may be considered a good one both in quality and quantity. The estimated production of 14,539 kilograms to the hectare is 1,200 kilograms more than the average of the harvests of eight years past.

Hay and clover are abundant, as well as beets, both for sugar and for fodder. Colza (rape-seed) has given good results, and flax is above the average of many years.

WM. S. PRESTON,
Consul.

UNITED STATES CONSULATE,
Liege, November 30, 1889.

INCREASE OF FRENCH COMMERCE.

REPORT BY COMMERCIAL AGENT GRIFFIN, OF LIMOGES.

The French custom-house authorities have just published general tables of the commerce of France for 1888. Among the most interesting facts that have been brought to light by this document is the general rise in prices. It is well known that for a number of years prices have been gradually declining; each year has marked a new depreciation, and the decline has become so accentuated that many different theories have been advanced as an explanation. The most popular of these theories was that the decline was due to the cessation in the coinage of silver, gold having become the only standard of value and the monetary base. There has been a natural shrinkage in the currency, and all prices have been forced proportionately downward. This theory has been opposed and considered defective by some of the most noted financiers, who declared that the fall in prices depended altogether upon different causes. The document published by the custom-house authorities proves that, without the re-establishment of the free coinage of silver, and although silver has not been re-instated as a monetary base, there has been a general advance in prices.

In the year 1888 the valuation of importations, calculated after the enregistered price of 1887, attained the sum of 4,053,000,000 francs;* or, calculated according to the real price of 1888, it amounted to 4,107,000,000 francs, giving as a difference between the prices of the two years 54,000,000 francs, the first valuation being provisional. The excess of valuation is 1.30 per cent. French exportations exceeded 3,210,500,000 francs, the amount in 1887 which was exported; this sum was increased by 36,000,000 francs, or 1.10 per cent., last year. This bettering in prices has continued so far throughout this year. It is a fact that this increase is due in part to the greater activity of the exchanges. If high prices are able to obstruct trade when excessive, because the consumption is diminished, they are, on the contrary, a stimulant to trade when they occur after an extreme depression, and it is permitted to see in the future still higher prices.

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* 1 franc=19.3 cents.

The French custom-house tariff is based on what is called specific duties; in other words, the duties are levied according to weight or the unit of the merchandise, instead of following, as they formerly did, the fluctuations of values. The protectionist party has refused to maintain the ad valorem duties for this reason, that the prices being lowered the protection wavered with them; in fact, by the substitution of fixed duties to variable prices at a time when the rates were lowering, they succeeded in creating, without avowing it, progressive protective duties, which would be injurious to the progress of exchanges, as the depreciation of the merchandise became greater. The increase in the market-price leads to an inverse result, as the prices rise so much the more the specific duty diminishes. The transactions are therefore facilitated, or at least one of the artificial obstacles to the free development of trade is removed little by little. This phenomenon certainly aids exchange and transports. It remains to be seen now whether there will be a return to duties ad valorem or an augmentation in the existing specific duties; there will have to be an increase somewhere.

A glance at the following table will permit us to take account of the fall in prices which took place between the years 1880 and 1887, with the rise in the latter year:

Year.	Importations.		Exportations.	
	Increase.	Decrease.	Increase.	Decrease.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
1880	2.56		1.98	
1881		3.07		3.07
1882		3.01		0.6
1883		3.8		2.1
1884		4.3		3.5
1885		3		3
1886		0.6		1.5
1887		5.7		2.2
1888	1.33		1.12	

It is also curious to notice that some articles have shown, last year, an augmentation in price of more than 20 per cent., for example, flax, colonial or foreign sugars, oils made from oleaginous seeds and fruits, the nitrates of soda and potassium, and copper. This last-mentioned article leads us to say that in the increase in price which has taken place in 1888 a particular element has entered, viz, the influence of different syndicates. Experience has shown that this influence is altogether precarious and transitory. If the high values which are observed were not due to more important causes, they will be only momentary. But it does not seem that the market was altogether affected by the action of the syndicates They have been able, in general, to take advantage of the rise, but it is principally a reaction which has taken place against the prolonged and growing decline that the above table shows.

The first ten months of the present year show a continued and very decided progress over last year; this is especially to be noticed in the increase of exportations, which amount to 252,723,000 francs more than for the corresponding period of the previous year. There was also a decrease in the importation of food products amounting to 52,434,000 francs. The importations of raw materials and of manufactured articles show a marked improvement, while the exportations of manufactured articles have made the astonishing rise of over 109,501,000 francs within ten months.

In the accompanying table a comparison is made between the importations and exportations of food products, raw materials, manufactured articles, and general merchandise for the first ten months of the years 1888 and 1889, ending October 31:

IMPORTATIONS.

Articles.	1888.	1889.	Increase.	Decrease.
	Francs.	*Francs.*	*Francs.*	*Francs.*
Food products	1,203,803,000	1,151,369,000		52,434,000
Raw material	1,642,368,000	1,676,148,000	33,780,000	
Manufactured articles	444,862,000	474,039,000	29,177,000	
General merchandise	93,782,000	105,706,000	11,924,000	
Total	3,384,815,000	3,407,262,000	74,881,000	52,434,000

EXPORTATIONS.

Articles.	1888.	1889.	Increase.
	Francs.	*Francs.*	*Francs.*
Food products	553,701,000	626,342,000	72,641,000
Raw material	570,454,000	626,309,000	55,855,000
Manufactured articles	1,354,254,000	1,463,755,000	109,501,000
General merchandise	158,969,000	173,695,000	14,726,000
Total	2,637,378,000	2,890,101,000	252,723,000

WALTER T. GRIFFIN,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Limoges, November 27, 1889.

WIESBADEN-LANGENSCHWALBACH RAILWAY.

REPORT BY CONSUL-GENERAL MASON, OF FRANKFORT-ON-THE-MAIN.

On the 15th of November there was opened for traffic the new railway line from Wiesbaden, via Dotzheim, Wehen, and Bleidenstadt, to Langenschwalbach, in the province of Hesse-Nassau. The track is of standard gauge, and is at present something more than 12 miles in length, but it will be extended northward from Schwalbach down the valley of the Aar to Station-

Zollhaus, where it will connect with the railroad already built from the main line in the valley of the Lahn a short distance below Limburg. There will thus be created a new railway line, from the Lahn across the Taunus Mountains to Wiesbaden and Mayence, which, when complete, will have, as is thought, a considerable strategic importance.

It was this consideration which, more than any other, dictated its construction, for the new road is substantially a Government work. It was surveyed and built by the State engineers, and cost 1,472,000 marks ($350,000), of which the imperial treasury contributed 1,200,000 marks and the local villages and communes which are benefitted thereby 272,000 marks. The road is at present single tracked, and cost about $29,166 per mile. This is a high figure for secondary railway building in Germany, but it is explained by the fact that its route lies through a mountainous country, crossing the Taunus range at a point known as the Iron Hand, 1,050 feet above the level of Wiesbaden and 440 feet above Schwalbach.

It has required careful engineering to lay a line only 12 miles in length across a ridge like that with a grade nowhere exceeding 1 foot in 30. But this has been successfully done, and the new road, the steepest in Germany, has been built with all the careful solidity which characterizes Government constructions in this country. The point of interest in this subject to Americans is that it opens to easy access the baths of Schwalbach, to which a steadily increasing number of Americans repair for the treatment of nervous and other complaints. The springs at Langenschwalbach, as it is now officially called, were well known as early as the third century, and two or three hundred years ago, before Wiesbaden and Homburg had attained their present celebrity, that little village in the high valley of the Taunus was a fashionable summer watering-place.

Of late years it has been, by reason of its remoteness from railways, almost wholly a health resort, visited only by persons sent there under medical advice. Its new communication will doubtless give the place increased prosperity.

The present service includes one freight and three passenger trains daily to and from Schwalbach, and these will be increased to five or six during the summer season.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, December 5, 1889.

Trinidad asphaltum.—Under date of November 10, 1889, Consul Sawyer reports that the shipments of asphaltum from Trinidad—the greater part to the United States—from January 1, to June 30, 1889, amounted to 32,460 tons, being a prodigious increase over any previous semi-annual shipments during the history of the colony.

PRICES OF BREADSTUFFS IN GERMANY.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

The results of investigations made by Berlin's bureau of statistics during the year 1888 have been made public. From an economic stand-point they are interesting and very instructive, at least as regards the ratio of bread prices to those of grain.

The method of getting at the facts is by no means the least interesting part of the report. On the 1st and 15th of each month of the year, in each and every part of Berlin and its suburbs, bread was bought without letting the parties from whom it was purchased have an inkling of the purpose for which it was bought; in the same manner the so-called land brod, or land bread, was bought in the city and suburban markets and wherever it was found offered for sale. The bread thus bought was tested as to weight and quality. From the monthly results of weighing, expressed in pounds, and the prices paid, an average price was taken, which gets about as near to being a fair average of the price paid for bread by Berlin's population as possible. The prices thus obtained set over against the average price for flour and grain, as reported by the same bureau, gives the following very interesting table:

Average price paid in Berlin during 1888 for rye bread, rye meal, and rye per 100 kilograms.

Months.	Bread.	Flour.	Rye.
	*Marks.**	*Marks.**	*Marks.**
January	....	16.65	11.80
February	20.29	16.38	11.60
March	20.60	16.39	11.64
April	20.32	16.77	11.95
May	20.31	17.41	12.60
June	20.31	17.48	12.83
July	20.57	17.83	12.74
August	20.91	18.95	13.88
September	21.44	22.04	15.71
October	22.55	22.08	15.94
November	23.27	21.91	15.47
December	23.52	21.66	15.20

* 1 mark = 23.8 cents.

The first thing proved by these figures is that the price of bread is more or less constantly dependent on the price either of flour or grain, or both. The move upwards in the price of grain was followed by a parallel upward movement in the bread price.

It is interesting, however, to note that whereas the prices of grain and meal rose almost simultaneously, because of the wholesale character of these goods in the markets, the prices of bread changed some time afterwards. This was, of course, due to the fact that the baker, buying and selling in small quantities, could only follow in the movement of prices as or after he baked his dear or cheap flour. The greatest wave in the grain and flour price moved along in the time from August to September, while the price wave for bread was heaviest and highest from September to October. Rye grain and rye meal or flour went slowly upwards from February to June, while bread went down from March to June, and up again in July. In a similar manner, while the price of grain and flour in the months of November and December weakened and went back, that of bread went upwards. It would thus seem, judged by the table, that the ratio in the price of bread is not constant to that of grain and flour. The disturbing factors, however, will be found in the many requirements of the baker's trade. Before bread is baked, besides the price for raw material (flour), there must be paid all the other expenses tangent to production—rent, wages, fuel, etc.; these affect the bread price. A careful examination of the table, especially during the winter months, will show that the baker has but very little with which to pay rent, fuel, wages, etc., and take out his own wages and profit. Expressed in per cent., the rye rose from its lowest point in January and February to its highest in October, 35 per cent.; that of meal (flour), 32.6 per cent.; while the highest showing in per cent. for bread from January to December was but 16 per cent.

This 16 per cent. increase in the price of bread corresponds with the increase in the price of grain and flour in the world's markets. But the price for rye, which, in a short time, as we have seen, affects the price of bread, has felt in the home (German) markets the full effects of the new duties on imported breadstuffs. The German duty on rye was 5 marks per 100 kilograms; therefore, one-third of December's price of 15.20 marks per 100 kilograms is tax. At the time Berlin's December price was 15.20 Bremen's free-port prices were 10.4 per 100 kilograms, a difference almost exactly equal to the tax or duty prevailing on grains imported. Had Bremen's prices prevailed in Berlin in December, the price of bread, instead of being some 3 to 4 marks per 100 kilograms dearer, or 3 to 4 pfennigs per kilogram more, would have been cheaper than in January.

One can safely claim that the prevailing price for rye and the corresponding bread price, under the circumstances cited, is an average one; but the chief and great danger that is inseparable from the existing tax on breadstuffs is this: So soon as rye, on or in the free markets (markets where no taxes on breadstuffs are gathered), reaches an average price of, say, 150 marks per 100 kilograms, it will sell in the German cities, because of the enormous duties, at 200 marks per 100 kilograms, and no power on earth can keep bread and flour from going up and up and up, out of reach of the poor man's pennies. To one familiar with German life, who has seen daily for years all classes, from the diggers in sewers to bank clerks, eating bread, rye bread especially, what a few pfennigs difference in price means is at once apparent; a difference of but 1 pfennig a day makes 365 pfennigs yearly—for the average German consumer at least a half-kilogram. I never saw such bread eaters; but when it is 2, 3, and 4 pfennigs dearer the annual difference would buy a pair of shoes for each member of a family, and shoes must be bought; and among people where masons and mechanics get 75 cents to $1 a day, and where the lead tops (capsules) of wine bottles, the clipped ends of cigars, and old corks are gathered and pocketed by well-to-do business men, and sent to the orphan and other asylums to be made over—the lead melted, the cigar ends made into snuff, cigarettes, and "fine-cut smoking," and the corks ground and made into linoleum—changes in bread prices are important factors in daily life.

Not the least evil of Europe's vast military system is that it necessitates a development in each country of a dependence for food supplies on the home product, at least such is assigned by friends of the excessive taxes (duties) on breadstuffs as reason good enough for their further continuance; such a reason, however, would have little or no weight before the prospect of a long war.

I desire to add that right here in Mannheim, winter after winter, in a city numbering mark-millionaires by the dozen, one of Germany's richest and most enterprising cities, its 65,000 souls huddled together within speaking distance of each other (the city circuit is not 3 miles round), Government must open soup houses and distribute bread rolls to hungry poor children in the public schools. Let America's grain fields pour out their horns of golden plenty into Mannheim's markets untaxed, and the soup house will go and school-children go in and out to their homes unbranded by the mark of petty, if not semi-pauperism. A striving after the good, true, and beautiful is commendable; but a doing unto others as one would wish to be done by, a striving to solve city problems by the injection of a few philanthropic factors, instead of the ever uncertain x, y, z's of political economy, would go far, very far, towards solving these bread-and-butter-of-the-poor problems by making meats and breadstuffs cheaper, even if northern landholders have to be satisfied with smaller annual profits.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, November 29, 1889.

SILK DESIGNS, ENGRAVING, AND PRINTING

REPORT BY CONSUL FAIRFIELD, OF LYONS.

The following is a statement of the cost of designing, engraving, printing, and finishing printed pongee silks at Lyons, as received from two responsible parties, party No. 2 being regarded as especially reliable:

FROM PARTY NO. 1.

Designing.—From 50 to 200 francs* for each design, according to its elaborateness and acceptability.

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*1 franc = 19.3 cents.

Engraving.—From 50 to 1,000 francs for the pattern, according to the elaborateness of the design and the number of rollers to be used. The rollers belong for one year to the one who has paid for the designing and engraving. After that they become, by general custom, the property of the printer, belonging to what is called his "omnibus" collection. From these he prints for his customers, without any charge for designing or engraving.

Printing.—From 20 to 150 centimes a meter, according to the number of rollers to be used and the difficulty of the work.

FROM PARTY NO. 2.

Designing and engraving.—For one roller, 60 francs, net; for two rollers, 100 francs, net; for three rollers, 150 francs, net, etc. This firm gives to the persons paying these prices the exclusive use of the rollers the first season; after that they have the entire control of the rollers for their own benefit. They do this work at these prices in view of the fact that they also do all the printing from them. The rollers never leave their own establishment, hence these low prices for designing and engraving.

Printing.—Under this general head they indicate two processes: (1) Application, (2) enlevage; the second involves a kind of bleaching process before applying the roller. Application per meter: Sur blanc and decroue,* 25 centimes; sur tiente and claire,* 30 centimes; two colors, 40 centimes; three colors, 50 centimes. Enlevage per meter: Black and white, 30 centimes; black and color, 45 centimes; white and color, 40 centimes; color upon color, 50 centimes; two colors, 50 centimes; three colors, 70 centimes. All these prices are where the goods have the ordinary width of from 50 to 70 centimeters. From these prices there are two discounts, one of 10 per cent., which seems to be a matter of course, another of 5 per cent. for tear and misprint. Terms of payment, cash.

Finishing.—The fabric, coming through the process of printing more like a "rap" than any thing else, is subjected to a process of finishing, which costs from 9 to 10 centimes a meter.

EDWARD B. FAIRFIELD,
Consul.

UNITED STATES CONSULATE,
Lyons, November 30, 1889.

AMERICAN BEEF IN COLOGNE.

REPORT BY CONSUL WAMER.

There has been recently some excitement in this city among certain classes, caused by the arrival of thirty head of American cattle to be butchered for this market, and some of the lovers of good beefsteak were most anxious to get a bite of the meat of these North American animals. Hearing of the arrival of this herd of American cattle, which was a part of a shipment of one hundred and sixty head sold in the Rhenish provinces, I called upon Messrs. Salm & Whil, one of the largest cattle-dealing firms here, and succeeded in procuring the following information regarding the thirty head sold in this market, which will no doubt be of some importance to dealers in the United States.

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*These two are where one color is applied, but differ as the fabric is more or less cleaned.

The quality of these oxen was good, but too fat, which, however, can be remedied. The price obtained per 100 pounds of the dressed meat, that is, exclusive of the head, hide, feet, and entrails, which fall to the butcher, was 70 marks, being the same price paid for the home stock. Therefore, American cattle can compete with the home production.

There is a difference among oxen fattened on pastures and those fattened in stables. The latter are preferred here, especially the red and checked ones, which might command a higher price, say, 72 marks per 100 pounds. Both kinds are readily marketed here. There being rather a scarcity of cattle here this year, and a consequent rise in the price of beef meat, it is thought that a considerable number of American cattle can be sold here, and I am informed that another large shipment is on its way from America for the German market.

WM. D. WAMER,
Consul.

UNITED STATES CONSULATE,
Cologne, October 24, 1889.

USURY IN THE GRAND DUCHY OF BADEN

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

The wickedness of usurers, the wiles with which they were successfully ensnaring the poor and ignorant, compelled the Baden government, in 1880, to take measures to cut out this, one of the most dangerous cancers of a body politic—usury. So important has been this question, so wide-reaching the growth of usurious methods, that almost every government in the Empire has had to take hold of it. The economic commission of Prussia discussed it a short time ago, the agricultural council is on it now, or will be in a few days, and the papers are never done discussing it.

The imperial bureau of statistics reports that the number of persons tried for this offense has been growing yearly less and less.

In the year 1882, 98 persons were punished for usury; in 1883, 93; in 1884, 61; in 1885, 37; in 1886, 42; in 1887, 36; in 1888, 36. The table shows a steady decrease, and were all cases covered by it, or met by the laws, the Germans might rejoice and look forward to a time when usury would be no more; but, alas, the facts present another picture, and force Germans to acknowledge that the law of May 24, 1880, aimed at those pests of society, usurers, especially in cases of cash loans, at frightfully usurious rates, on notes of hand, drafts, credit claims, etc., has had most unexpected, unforeseen (though they might have been), and unpleasant consequences; for now the usurer, who once robbed his neighbor of his gold, plunders him of his goods, for no sooner had the law closed the avenues in which he had been making so much hard cash than he turned his attention to making loans on goods and chattels, thus increasing the number of usurers in a field already well filled. In doubt as to what they would have to expect, in view of the special laws covering such cases, when they make loans, as above indicated, on notes, etc.—for they know the judges detest them and their trade, and they know, besides, that the bench is left great discretion in the matter of broad or rigid interpretation of a law whose spirit, as well as letter, is to stamp out usury—the usurers by trade have turned their undivided attention to issuing money at usurious rates on cattle, land, and wares. This business was never before so flourishing as at present. This fact has been established beyond a shadow of doubt by investigation instituted and carried out by the union for social politics. The time has come for new measures to secure legislation corrective of this new form of the disease, as was the May law of 1880 for the old. The least that should be demanded is expressed in a series of resolutions presented by Dr. Kuno Frankenstein before a congress of German agriculturists. These are:

(1) To extend the usury law so as to make it take in or cover real and personal estates.

(2) To increase the punishment for usury.

(3) To insist upon persons known to be engaged in loaning money keeping regular books like any other business firm.

(4) To insist upon all contracts with such persons being in writing, especially in the case of immovable objects.

(5) To forbid, at private auctions, the custom of obtaining higher prices by means of exciting purchasers by giving them wine and liquors free before and during the time of sale.

Such measures, even when made into laws, are by no means enough; true, they make more difficult and dangerous the usurer's path, but, fox-like, he finds ways of accomplishing his usurious designs and escaping the law's talons. It needs, besides such laws, the moral and social elevation of the farmer class, those who now and for years have been bled most by these leeches. To accomplish this end, a better organization of the agricultural credit system is necessary. This should give to the farmer the cheapest possible loans, when needed, and thereby—the easiest wielded weapon, contempt for the usurers—enable him to escape their toils. Besides this, those credit unions, many of which support and connive at the present prevalent usurious system, should be crushed or frowned out of existence.

In view of the fact that usury prevails most in districts where the land is most divided or parceled out into small holdings, and where the conditions necessary for the owner's prosperity entirely or in part fail, the unsatisfactory results of the division of land must be removed. This should be accomplished either by new laws regulating inheritance, or by legal measures looking towards hindering or rendering more difficult the prevailing system of dividing up estates. More attention must also be given to establishing and extending the beneficial influences of the insurance societies to the agricultural parts of the population, especially the life insurance branch. By this means claims of certain heirs may be paid in cash, thus preventing the frequent and disastrous divisions of real and personal estates. Besides, the agricultural societies should be assisted in their efforts to secure cheap, good goods for sale among the farmers, and at the same time a good, quick sale (market) for the farmer's products. To do this he (the farmer) must be freed as much as possible from the usurious middle-man, who for years has been selling him at dear rates and buying back from him at cheap ones. The societies organized in the country to do battle with the usurers have been very successful; they must not pause, however, and they must be encouraged and assisted, for usury is a seven-headed dragon from which every head must be cut or he will come again. Cunning must be met with cunning. Neither the individual efforts of farmers nor their co-operative ones, unassisted by Government, will avail much long. Only fear of the law will deter the usurers; hence the laws must be strict, wide-reaching enough to cover all cases, commanding, and forbidding.

What Germany has suffered for years from the usurers would fill volumes. A cunning class, working upon the cupidity and ignorance of all other classes, lived a parasitic life, and is still doing so. It is hoped, however, that this new crusade against the class will leave it hardly a leg to stand on. A case came under my personal observation only last night where one of these money-lenders bought for 100 marks a woman's claim of 140 marks against one of the best railroad companies in South Germany. The claim was worth its full face value, 140 marks. For brokerage 5 marks would have been more than enough, but the rascal took 40.

It was for a long time common at auction sales to have beer on tap and liquors free. Those bidding then, and even now sometimes, had to throw in a cask or barrel of wine or beer with the price offered for land or cattle bought. "One hundred marks and 1 keg of wine, 200 marks and 2 barrels of wine," was the mode of expression.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, November 29, 1889.

BADEN TOBACCO.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

Tobacco has become a staple article of South German culture. In spite of taxes and the enormous cost and great quantities of foreign fertilizers required, tobacco planting still seems to be a profitable business. The German product hitherto has been far from a satisfactory one, hence the large demand and greater desire for foreign qualities. No end of efforts are made to make America's and Sumatra's best brands indigenous to German soil and climate; but the end is not yet.

This year saw 35,249 planters laying out 664,270.17 ares* of land for growing "the weed." These were scattered over the grand duchy from Basel to Waldüren or Lahr. Rated according to tax districts, of which there are twenty-six in the grand duchy, the number of planters and ares planted were:

Districts.	No. of planters.	Ares planted.	Districts.	No. of planters.	Ares planted.
Baden	1,058	13,575.41	Hornberg	22	230.17
Freiburg	413	4,643.99	Mosbach	574	6,496.57
Heidelberg	1,749	50,075.97	Müllheim	1	9.46
Karlsruhe	1,894	45,966.03	Oberkirch	232	2,556.22
Lahr	5,053	92,621.68	Offenburg	2,932	49,476.36
Mannheim	2,700	92,461.51	Pforzheim	69	469.79
Singen	9	6.75	Rastatt	226	1,883.67
Stühlingen	5	0.65	Schwetzingen	3,432	98,998.82
Achern	4,340	72,590.45	Sinsheim	2,645	37,169.69
Altbreisach	38	1,055.67	Tauberbischofsheim	37	156.16
Bretten	1,886	21,262.64	Thiengen	1	0.45
Bruchsal	3,809	47,273.97	Ueberlingen	1	0.06
Emmendingen	1,986	23,711.46	Werthheim	137	1,576.27

Last year there were 41,400 planters, and of ground planted with tobacco 788,593 ares, a decrease of 6,151 planters and 125,123 ares of land, or a reduction, expressed in percentages, of 14.86 and 15.85 per cent., respectively. This reduction was so wide-spread that each district contributed more or less. It has its cause in the low price paid for the product of 1887, prices which, after costs, care, labor, etc., were considered, were regarded as by no means more tempting than those paid for general land products. A secondary cause may be found in the unfavorable weather prevailing at the time when planting took place.

The total value of the crop in roof-ripened, dry condition was 4,653,624 marks (1 mark=23.8 cents), against 5,455,207 marks for the crop of the year previous, a difference of 801,583 marks, or 14.69 per cent. This year's yield, with its 1,329 kilograms per hectare, compared with that of 1887, with its 1,935 kilograms per hectare, was very small. The difference, 606 kilograms per hectare, foots up 31.32 per cent., a very discouraging falling off; nor does the quality, from pretty good to good, make any thing like amends for the loss quantitatively, although the quality is better than was that for the year previous. The plants remained backward because of cold, wet weather which prevailed during the growing period. Afterwards, under the influence of more genial skies and warm south winds, the plants did well, but the time before the harvest was too short to allow of their making up for previous losses. In size and strength the leaves were not up to other crops, but after fermentation the leaves showed a good color and odor, and promise good for wrapping purposes in the manufacture of cigars. The crop has been already pretty much all bought up at good prices, partly owing, I suppose, to a much more limited supply than for the year previous as much as to the superior merit of the leaves.

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* NOTE.—1 are=100 square meters, or 0.098845 rood, 1 hectare=100 are, or 2.471143 acres; 1 kilogram=1,000 grams or 2.2046215 pounds avoirdupois.

As the different sorts were not sold separate, it was not possible to get any thing other than an average price. The minimum price paid per 100 kilograms, exclusive of tax, was, for upper leaves, 41 marks; sand leaves, 19 marks; stalks, stems, etc., 8 marks. The maximum price per 100 kilograms was, for upper leaves, 63 marks; for sand leaves, 34 marks; stalks, stems, etc., 21 marks.

The green leaves in Upper and Lower Baden, sold sometimes in the green state to manufacturers, brought 4 marks per 100 kilograms. For the whole grand duchy 53 marks per 100 kilograms were realized for each planter on an average. In the year previous only 36 marks per 100 on an average were realized.

The number of planters for 1889-'90 will be about the same as for 1888-'89, but only 640,899.75 ares, against 664,270.17 ares in 1888-'89, will be planted. I have read from time to time in the daily papers of the experiments with Virginian and Maryland plants giving very good satisfaction. The large concern (chemical) of George Carl Fimmer, near this city, is constantly experimenting on fertilizers adapted to the needs and desires of tobacco planters; as yet no marked success has been achieved. Theoretically, and doubtless as a matter of fact, the land must get back in fertilizer what it has lost in smoke.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, November 5, 1889.

TOBACCO IN THE PHILIPPINES.

REPORT BY CONSUL WEBB, OF MANILA, MAKING CORRECTIONS IN A PREVIOUS REPORT.

I have the honor to acknowledge the receipt of your instructions dated November 6 last, and to say in reply that the errors mentioned as having been found in that portion of my report on the annual production of tobacco in the Philippine Islands which appears on pages 681 and 682 of CONSULAR REPORTS No. 107½ were due, in the case of the table of exports for four years and the subsequent paragraphs, to the careless pointing off of the figures. In the original copy of my report the figures, which were obtained after a protracted and careful search, and are as accurate as it is possible to obtain from the imperfect records, are correctly written, but in copying them they were incorrectly pointed off.

In the table of Government crops for twenty years, which was prepared for me by one of the leading tobacco-exporting firms, the amounts were stated in quintals instead of kilograms, an error, probably, of the clerk who prepared it, and were afterward reduced by myself to tons. Had I more carefully compared the footings of the two tables in the original copy, the error would have been apparent at once.

I regret exceedingly that the blunder has occurred, as I realize fully the fact that consular reports are valueless unless strictly accurate, and I shall, in future, exercise greater care and vigilance in revising my reports.

CORRECTIONS.

The following are the corrected returns to take the place of pages 681 and 682 in No. 107½ (Tobacco Culture in Foreign Countries):

ANNUAL PRODUCTION.

Under the monopoly the Government kept a careful record of the tobacco crop, and it was possible at all times to obtain reasonably accurate statistics concerning it; but under the present system it is almost impossible to do so, as each dealer keeps a record of his own transactions only, if he keeps one at all. From the most reliable sources accessible I have succeeded in obtaining the following statistics of production and export, which may be accepted as at least approximately correct.

The Government crops for twenty years, or from 1860 to 1880, averaged per annum as follows:

Province.	Quantity.	
	Kilograms.	*Tons.*
Cagayan	87,965	96.85
Isabela	60,519	66.65
South Hocos	1,257	2.36
North Hocos	19,579	21.55
Abra	3,022	3.33
Lepanto	213	(*)
Union	14,609	16.06
Nueva Exija	13,771	15.15
Visayas	17,584	19.35
Total	218,519	241.55

* 496 pounds.

I have been unable to find any accurate record of the crops for 1881–'83, but have found data showing a marked increase in 1884–'87, as will be seen by the following table, which shows also to what countries the major portions of the crops were exported:

Exports of tobacco and total crop.

Whither exported.		1884.	1885.	1886.	1887.
Spain	tons	315.72	6,159.99	5,528.62	3,510.02
England	do	561.98	127.33	114.69	59.64
British posessions	do	1,307.97	1,021.61	666.89	1,335
United States	pounds	6,288	2,856	1,729	17,503
Belgium	tons	....	161.23	99.10	266.62
China	pounds	2,314	1,463	25,299	34,707
All other countries	do	288	855	1,729	1,503
Total crop	tons	2,180.15	7,472.74	6,423.68	5,198.23

Of the total amount exported during the four years designated, 5 tons and 98 pounds were shipped from Cebu and 1 ton and 685 pounds from Iloilo. The total shipment of cigars last year (1888) was 112,074,000, and of leaf tobacco 10,742.79 tons, as follows: Cagayan and Isabela, 5,181.06 tons; Visayas, 3,127.01 tons; Igarottes, 2,347.29 tons; miscellaneous, 87.43 tons.

Spain took 10,898 tons of raw leaf and 26,715,000 cigars, while England and the British possessions had 164 tons of leaf and 17,871,000 cigars.

Of last year's exports the United States are accredited with 646,900 cigars, quite a large percentage of which went to San Francisco consigned to Honolulu; 125,000 were shipped direct to New York and 80,000 to Boston. In 1887, 986,000 cigars were shipped to the United States, 722,500 of which went to New York and 74,000 to Boston.

Spain, in 1887, contracted for 14,800 tons of leaf, to be delivered from July, 1887, to June, 1889, as follows: Cagayan and Isabela, 5,670; Visayas, 5,500; Igarottes, 3,630.

Nearly all of this amount has been delivered by the Compania General. It is expected that the Farming Company, now established at Madrid, will in future take something like 8,250 tons annually, and that the contract with the Compania General de Tabacos de Filipinas for 1889–'91 will be fully as large as that for the past two years, if not larger.

It is yet too early to estimate with any degree of accuracy the prospect for this year's crop. The general impression, however, is that it will be smaller than that of last year in Cagayan and Isabela, but that the quality will be superior to that of 1888. The Visayas and Igarrottes promise an average crop. The cutting will begin the latter part of the present month.

MANILA TOBACCO FACTORIES.

There are twelve large tobacco factories in Manila, named as follows: La Flor de Isabela, the factory of the Compania General, which manufactures seventy-five brands of cigars, ten brands of cheroots, six grades of cut tobacco, and eight brands of cigarettes; La Hensina, the factory of Hens & Co., which manufactures two brands of cigars, "La Hensiana" and "El Capitan General"; El Oriente, the factory of A. Germann & Co., which manufactures four brands; La Primarera, which manufactures two brands; and the following, which manufacture one brand: La Insular, Maria Christina, La Exportadora, La Puerta del Sol, La Constancia, La Perla Espanola, Para Usted, and La Honradez.

These factories, in the aggregate, give employment to about 11,000 persons. Besides, there are numerous small factories owned by natives and Chinese, the latter making, as a rule, a cigar not at all creditable to Manila.

In 1887 there were 1,213.50 tons, gross, of cigars exported, and last year 1,845.48 tons.

ALEX. R. WEBB,
Consul.

UNITED STATES CONSULATE,
Manila, December 24, 1889.

STOVES IN GERMANY.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

It may interest our manufacturers and people in general to know that a great preference is shown in Germany for American and Irish stoves. Yes, singular as it may seem, Ireland, because of her poverty, and America, by her skill, have developed, in the matter of stoves, a much superior article to any hitherto known in Europe. Both are great favorites, but the American, chiefly for its cheapness, though why its cost of production should be less than that of the Irish I can not say, for it is much more complicated, at least with doors and ornamentations. So great favorites are both these stoves that factories run by stock companies have sprung up, and are every day springing up, or increasing in size, all over the Empire. The German will never import what he can make; no matter if his product is by no means so neat or substantial in all its parts as the original. Pick up any daily paper and you are sure to find advertisements of American and Irish stoves, "Amerikanische und Irische Oefen." The American or Irishman who flatters himself that he is going to see a stove sent from Belfast or New York is much in error. The Irish stoves and the American ones are made right here in Mannheim, or its neighborhood. It is only the pattern that America or Ireland supplies, nothing more, not even the workmen. These stoves not only are being bought when new ones are wanted or needed, but are taking the place of the old porcelain stoves (which burn only wood) in many houses and offices, the Irish pattern, because of its price, being bought by the rich, and the American by the poor. I had the satisfaction of going through one of the factories last week, accompanied by an American of German birth, a brother of the owner of the factory here, who hopes to introduce these German-made stoves into the United States. I could not help wondering, when I saw the rude manner in which much of the work was done and the slowness of manipulation, why we could not manufacture and export cheap enough to compete here; but above all, to keep the South American and African trade from Germans. I feel perfectly satisfied that Americans could produce their own patterns and the Irish stoves much cheaper than do the Germans. The great cause for these two kinds of stoves being such favorites is their capacity for saving the consumption of coal in a country where the latter is so dear. These stoves are destined, sooner or later, to replace all the wood-burning stoves, for, dear as coal is as a commodity for household use, wood is much more so. But I write to suggest that an effort be made to secure South American and other trade, which Germans will be reaching after just as soon as they find themselves fitted up to have a surplus over the home demand, which, at the present rate of growth and production, must be very soon.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, October 21, 1889.

RECEIPTS OF THE GERMAN EMPIRE.

REPORT BY CONSUL-GENERAL EDWARDS, OF BERLIN.

I have the honor to transmit herewith as of possible use a table showing the receipts from customs duties and general taxes on articles of consumption, together with other receipts of the German Empire, for the period from April 1, 1889, to October 31, 1889.

Table showing the receipts (inclusive of credited balances) from the customs duties and general taxes on articles of consumption, together with other receipts of the German Empire, for the time from April 1, 1889, to the end of October, 1889.

ESTIMATED INCOME.

Source of income.	Estimated income for the time specified.	Export subsidy.	Net income.	Income estimated for the same period of the preceding year.	Increase.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Customs duties	211,291,813	142,751	211,149,062	166,133,492	45,015,570
Tobacco tax	5,076,020	98,926	4,977,094	4,738,116	238,978
Sugar tax	11,048,927	52,485,009	41,436,082	86,684,434	(*)
Sugar consumption tax	23,963,634	65,058	23,898,576	2,221,506	21,677,070
Salt tax	22,257,534	69,047	22,188,487	22,077,800	110,687
Spirit tax	6,114,525	4,455,466	1,659,059	681,164	997,895
Consumption tax on brandy, whisky, etc	64,566,171	149,336	64,416,835	58,277,900	6,138,935
Brewing tax	15,153,261	76,373	15,076,888	13,315,175	1,761,713
Export tax on beer	1,774,684	....	1,774,684	1,540,220	234,464
Total	361,246,569	57,541,966	303,704,603	180,938,611	122,765,992
Play-card stamps	....	....	646,525	620,015	26,510
Tax stamps on exchange	....	....	4,295,292	3,968,103	327,189
Stamp tax:					
For papers of value	....	....	6,345,790	4,271,963	2,073,827
For mercantile businesses	....	....	8,144,737	6,906,124	1,238,613
For chances in—					
Private lotteries	....	....	361,187	239,239	121,948
State lotteries	....	....	3,989,589	3,820,371	169,218
Post and telegraph direction	....	....	121,898,330	113,084,330	8,814,000
Imperial railway direction	....	....	31,536,000	30,108,900	1,427,100

* Decrease, 45,248,352 marks.

ACTUAL INCOME.

Source of income.	Actual income during period mentioned.	Actual income during corresponding period of last year.	Increase +, or decrease —.
	Marks.	*Marks.*	*Marks.*
Customs duties	188,009,226	141,728,622	+46,280,604
Tobacco tax	6,937,506	7,582,841	— 645,335
Sugar tax	11,616,512	15,164,308	— 3,547,796
Sugar consumption tax	24,823,432	24,930,226	— 106,794
Salt tax	20,478,454	20,887,005	— 408,551
Spirit tax	9,959,949	9,029,921	+ 930,028
Consumption tax on brandy, whisky, etc	52,622,658	37,237,789	+15,384,869
Brewing tax and export duty on beer	14,315,801	12,612,395	+ 1,703,406
Total	328,763,538	269,173,107	+59,590,131
Play-card stamps	616,175	585,777	+ 30,398

W. H. EDWARDS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, December 2, 1889.

WINE TRADE OF CATANIA.

REPORT BY CONSUL LAMANTIA.

PRODUCTION IN 1888 AND 1889.

The production of wine in this consular district is, after the brimstone, the most important one; and the quantity has increased by one-third of the quantity that used to be produced some few years ago, and as the quantity yielded from recent plantations has not as yet reached its full development, it is to be expected that the output will still more increase. The wine so produced is partly consumed in the home markets, whilst the greatest part has hitherto served for exportation abroad and to continental Italy.

The preparation of these wines, however, is not such as to suit the palate of all consumers; their taste, in many cases, is too bitter or too sharp, due to the primitive and irrational methods adopted in preparing and finishing the liquid, which is found to contain an exorbitant alcoholic power. The increase of production and the recent cessation of commercial intercourse between this country and France has concurred to cause the overabundant production to remain idle in the market, and prices have fallen during the last years from 30 to 40 per cent. nor was there any probability that prices might rise to remunerative rates, because the ever-increasing production in this district and the rest of the island will tend to keep prices low.

It is believed that the extension of land adapted for the cultivation of vines in this district may be cultivated up to 45,000 hectares, or 111,150 acres, yielding a production of nearly 1,000,000 hectoliters, equal to 22,000,000 gallons, and it is expected that the production may be augmented by one-third or even one-half in the course of three or four years.

The wines better adapted to be exported are those obtained from the vines cultivated in the Bosco district (slopes of Etna), which are not used for home consumption, but are generally exported for mixture with weaker or less colored wines of foreign production, and are called here "vini di taglio" (blended wines).

The various alcoholic grades of wines produced in this district range as follows:

	Centigrades.
Catania, Terreforti	15.77
Catania, Piana	12.02
Giarre, Piana	13.08
Giarre, Etna	11.06
Aci Reale, Bosco	14.02
Mascalucia, Bosco	13.95
Motta, Bosco	15.19
Misterbianco, Bosco	14.65
Viagrande, Bosco	13.15
Aci St. Antonio, Bosco	12.37

These are divided into two distinct types called "Vino del Bosco," and "Vini Terreforti."

The first, as already stated, is a wine of a fine, reddish color, rather sharp to the palate, containing between 11 and 15 centigrades of strength, and, as previously stated, is generally exported for mixing with and finishing other wines of less power. It comes from the slopes of Mt. Etna.

The second, viz, Terreforti wine, comes from the low land of the plain of Catania, where the soil is of a calcareous and argilaceous nature, and its strength reaches, in some places, as far as 16 centigrades.

These wines are of a lighter color than the first named, and are chiefly used for home consumption, with the exception of a small quantity called "Vini Bianchi Terreforti," which is exported to the north of Europe.

A viticultural school, under the title of "Scuola Enologica," has been established here for two years for training young men, especially of the agricultural class, in the art of cultivating the vine and manufacturing wines. It has so far given very little results, but the gentleman who is now directing it is convinced that it will, in due time, prove efficient in preparing young people for the wine industry in a scientific form, in accordance with the system employed in France for preparing all those brands of wine that have met the favor of high-class consumers. The aforesaid school is kept up at the expense of both local and Government contribution.

The most important wine establishment, or "stabilimento enologico," in this district, and even in the whole of Sicily, is that of Baron Spedalieri, situated at the foot of Etna, 830 meters above the sea-level. It is well supplied and furnished with most of the implements for the making of wine, possessing 180 hectares of vineyard, the greatest part of which are of French origin. It produces the so-called "Etna Rosso," which has now been exported as far as South America and India.

Baron Spedalieri has also produced the "Extra Dry" and the "Etna Champagne" wine, besides several brands of cognac, which have been well received both in Italy and abroad, the demand being yearly increasing, so much that in 1888 he exported 7,000 packages of his wines in casks and cases. His products were awarded a gold medal in the last Italian exhibition held in London.

The territory in the district yielding the greatest quantity of wine is that of Giarre and Riposto, two very picturesque towns in this province, situated at a distance of 30 kilometers to the northeast of this city. Giarre, with a population of 21,000 inhabitants, is a center of much agricultural activity, chiefly vineyards, while Riposto, with about 10,000 inhabitants, is the shipping port where the greatest portion of products of the two communes are conveyed for embarkation in an open roadstead.

From Riposto, in recent years, a very important wine trade with France was carried on, until the year 1887, when the traffic came to a stand-still, in consequence of the breaking up of the commercial treaty between Italy and France. The termination of this treaty has proved disastrous to the wine-producing communities of the towns of Giarre and Riposto, which have since sought a new opening for their wines, some of which have been sent to London and to America on trial. The final result of these shipments does not appear to be encouraging for the exporters, for the demand is very quiet. Thus it is to be concluded that the Sicilian wines, as they stand, are not fit for the taste of foreign markets, where light, palatable wines of at least two winters of age, 11 of strength (Sykes), are required, perfectly fermented in oak casks. Green wines, such as are shipped from Sicily in badly coopered casks of chestnut, do not sell abroad. Prices in Sicily are, no doubt, cheap enough, but the drawback stands in the condition or finish of the wine, which is not in harmony with foreign taste.

The following table will show the quantities exported from Riposto during the last six years:

Wine exports from Riposto.

Year.	To Italy.	Abroad.	Total.	Value in United States currency.
	Gallons.	*Gallons.*	*Gallons.*	
1883	2,333,540	7,950,100	10,283,640	$2,868,842
1884	5,449,520	9,580,475	15,029,995	4,104,004
1885	5,752,160	6,426,275	12,178,435	4,139,409
1886	2,182,620	8,584,800	10,767,420	3,801,193
1887	....	12,416,575	12,416,575	3,476,643
1888	....	2,770,950	2,770,950	665,028
Total	15,717,840	47,729,175	63,447,015	19,955,119

There is no export duty on wine, and the Italian Government, to encourage the exporters, has contemplated a grant of a premium of 1.80 lire for each grade above 11 strength (Salleron) on any such wines sent abroad.

The vine disease, or phylloxera, continues to exist in this district, and it is reported that more than 2,000 hectares of vineyards are affected by it.

The preparation of spirits of wine, or alcohol, has had an important development within late years, which is extracted from wine dregs or from the inferior qualities of wine; but this industry is so heavily taxed by the Government that the most enterprising speculators find difficulty to sustain it.

Both the cultivation of the vine and the making of wine are still carried out in the old-fashioned style. The grapes, as gathered, are brought into what they call a "palmento," a sort of mill, where the fruit is trodden by the peasant, either bare-footed or (generally) in coarse shoes, not particularly clean, until the juice of the grapes is pressed out and made to run into a sort of stone tub or vat, which stands below the level of the mill or treading-barn, from whence the juice is transferred into casks to ripen into wine. During its fermention, in most cases, gypsum is used as a cleaning-up and coloring substance, and in other instances bullock's blood and the white of eggs is used to obtain a transparent and fine-colored liquid. How much such heterogeneous substance can concern in improving the wine remains to be seen; but the use of gypsum has certainly been condemned as most noxious to the health of those who indulge in the use of colored liquids, when plenty of pure and clear water can be had to satisfy one's thirst.

Finally, it is to be remarked that Sicilian wines, which hitherto were sent in large proportions to France, chiefly from Riposto, were shipped in a sort of semi-primitive state, and that these wines, before going through foreign markets, were subject to modifications by blending and finishing so as to render them fit to foreign taste. Such being the case, it can not be expected that these wines should find a new opening for exportation, as prepared in Sicily, but could only continue to be exported for ultimate and final finish abroad, as previously in France. Unless such an opening is found to replace French industry it is to be feared that the wine in question will not easily sell, unless the enological school will prove a success.

As regards the present vintage of this year, it is proper to state that the wine crop is calculated to have yielded a total output of 1,200,000 hectoliters, and its quantity is reported to be good, and even superior to the different quantities hitherto produced. The production of wine having failed in upper Italy, where the vintage has yielded some 11,000,000 hectoliters below the average output, prices are ranging high in Sicily, showing a marked improvement to those ruling during last year. The "Terreforti" wine is now being sold at 32 lire, and the "Bosco" wine at 28 lire per hectoliter, free on board at Catania and Riposto.

The exportation to France, in spite of the heavy import duty, has recently recommenced in a small proportion, and musts have been exported there, bought by French speculators on the spot. Exports promise to take a salutary development for this year's production, and demands for wine purchases are to be steady, advancing from Switzerland, Germany, South America, etc., and, if appearances are to be believed, the prospects for the future wine trade of Sicily are decidedly bright, and a wholesome revival in the trade can be entertained as certain. The event will be a most welcome one to the large viticultural community in this district, and will tend to improve the partly depressed conditions in the agricultural class, both as regards large and small holders.

VINCENT LAMANTIA,
Consul.

UNITED STATES CONSULATE,
Catania, November 18, 1889.

FORESTS OF GERMANY.

REPORT BY COMMERCIAL AGENT SMITH, OF MAYENCE.

According to a work recently published by one of the State foresters of Prussia, the entire forest area of Germany now amounts to 14,000,000 hectares (34,596,003 acres). Russia has 200,000,000 hectares (494,228,620 acres) of forests; Austria-Hungary, 19,000 000 hectares (46,951,718 acres); Sweden, 17,000,000 hectares (42,009,432 acres); France, 9,000,000 hectares (22,240,287 acres); Spain, 8,000,000 hectares (19,769,144 acres); Italy, 4,000,000 hectares (9,884,572 acres); and England, 1,000,000 hectares (2,471,143 acres). The proportion of communal (belonging to communes) to State and Crown forests in the different states of Germany is as follows:

Hectares.	Communal.	State and Crown.
	Hectares.	*Hectares.*
Prussia	1,355,000	2,423,000
Bavaria	388,000	941,000
Würtemburg	190,000	192,000
Hesse	90,000	67,000
Baden	259,000	93,000
Alsace-Lorraine	195,000	151,000

In Saxony and in the other states of the Empire, with the exception of Saxe-Meiningen (very small), about one-half of all the forests are State or communal property, considering the possessions of the Crown as a species of State property; and these are all subject to a well-regulated, permanent administration and supervision under State auspices, while the other forests in many of the states are not under any public control.

This forester states that there are 9,100,000 hectares (22,487,402 acres) of coniferous and 4,800,000 hectares (11,861,486 acres) of foliaceous trees in Germany. Of the coniferous trees, it can be affirmed, he says, that the greater part are on a soil adapted only to such growth, and on which nothing else can any more be cultivated. Of the coniferous trees 3,000,000 hectares (7,413,429 acres) are of the fir kind and 6,000,000 hectares (14,826,858 acres) pines. The greater part of the firs are in the mountains, preponderating in the Hartz Mountains, the Reisengebirge, the Erzgebirge, in the Thuringian forests, in the Verm, in the Vosges Mountains, in the Black Forest, in the so-called Bavarian Alps, in the Bavarian Forest, and in the Franconian, Tura, and Fichtel mountains. The pines are mostly on level tracts, and more than half of them are on soil unfit for the successful cultivation of useful timber. The 4,800,000 hectares of foliaceous trees are principally made up of beeches.

JAMES H. SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, October 24, 1889.

CENSUS OF GREECE.

REPORT BY CONSUL-GENERAL FEARN, OF ATHENS.

The census recently taken in this Kingdom, and just published in the Official Gazette, shows a total population of 2,187,208, of whom 1,133,625 are males and 1,053,583 females. The census of 1884 gave a total of 1,968,283, showing an increase of 218,925 during the five years ending with 1889.

The population of Athens is ascertained to be 107,000, giving a total, with its port of Piræus, of about 140,000, as against about 100,000 in 1884, a gratifying increase considering the financial and political difficulties with which Greece has had to contend.

By provinces, or "nomarchies," the population is given as below:

Provinces or nomarchies.	Population.	Provinces or nomarchies.	Population.
Attica and Bœotia	257,764	Cyclades	131,508
Phthiotis and Phocis	136,470	Corfu	114,535
Ætolia and Acarnania	162,020	Cephalonia	80,178
Argolis and Corinth	144,836	Zante	44,070
Arcadia	148,285	Arta	32,890
Achaia and Elis	210,713	Larissa	168,034
Laconia	126,088	Thessaly	143,143
Messenia	183,232	Total	2,187,208
Eubœa	103,442		

I may add that the increase has been quite general, showing a steady advance in prosperity throughout the country.

WALKER FEARN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Athens, October 17, 1889.

GERMAN VS. AMERICAN SEWING-MACHINES.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

Germany is producing about five hundred thousand sewing machines annually. Of those destined for the foreign trade many find their way into all the countries of South America, and, strange as it may seem, a consignment has been sent to Chicago, in the United States. An enterprising member of a very progressive and enterprising firm is going around now with the idea of shipping regular consignments to the United States gotten up with titles, ornamentations, etc., to meet or make a trade with the many millions of Germans in the United States, if with no one else. He is looking for a good agent. The titles, instructions, decorative designs, in fact, every thing about the machines, is to be German. This firm is the second largest in the Empire; it produces about thirty thousand machines in a year and employs about seven hundred hands. They manufacture the Singer machine. With this they are beating our manufacturers, so they claim, in every country outside of the United States. Why and how? First, because they produce and sell a much cheaper, if inferior, article, and, as far as inferiority goes, they claim that ours is better only in finish and decoration; that theirs answers the people's wants just as well, and "once this becomes known poor people, buying things for work rather than for ornamentation, buy ours (the German), and save the difference in price for pictures or something else; besides, you Americans give them what you make, what you think is best, allowing them to know nothing about the matter, while we make an effort to find out their desires; they are the best judges of what is best for them. 'Circumstances alter cases' is as good in Chili, Peru, Brazil, Argentine, as in New York or London." This manufacturer confessed to me that his iron castings are by no means so good as ours, and that we have lots of better machines than those of German make, but that they are too dear, and that when manufacturers of the United States go outside to sell they must go prepared to meet the wants of, and respect the ideas of, people with whom they wish to make trade; and, above all, that people get an idea that tools and machinery lose in quality when they get too much decoration and finish. The founder of this firm was formerly in the United States; he and his sons still retain their American citizenship. The company is now what is called an "Actiengesellschafft," or stock company, having about 1,000,000 marks (not quite $250,000) capital. With seven hundred workmen (*i. e.*, men and women, for much of the lighter work, decorating and box-making, is done by women and girls—these latter get about 23 or 24 cents a day) they turn out twenty-five to thirty thousand machines a year, and pay about 500,000 marks a year in salaries. They make all their own woodwork out of native German woods, poplar and pine, and black walnut for veneering. The average wages for men is 2 marks (less than 50 cents) a day. Even out of this the men save, and are sometimes, though I suppose not often, stockholders in the company for which they work. The superintendent said they had quite a number of such; that they are very thrifty, and very frugal; that strikes, or so-called labor movements and agitation, are unknown. This superintendent speaks excellent English, and I may add German, Spanish, French, and Italian. In answer to my question as to the cause of the recent progress in Germany he said:

> Right here is where the Germans are going to beat the world. Not only their art and industrial schools, but those for languages and commercial training, are going to give them the wing-footed, or rather wing-tongued, messengers of trade.

This he said in answer to my question as to what he thought Germany's recent and present progress and success were due.

> The French won't learn any other language, and you Americans, living like spiders on your own sustenance, think it's time enough when you need it; but by that time the German, who takes the crab's or snail's place in your mind in this race for riches, will be sitting on the stake with claims allowed when you others come jogging up. Once a man gets the Latin language, and no doubt the Germans do, the others, especially the Romanic tongues—Italian, Spanish, and French—come easy. It may not seem to pay, usually at first it doesn't, but do you know that our agents are sometimes paid, at least when first employed, in proportion to their lingual abilities? One having three tongues commanding at least 800 to 1,000 marks more a year than one having but two, while a man with but one gets no employment except at home.

I am giving you the interview about as it occurred, without any reference to order. Referring to the help again, he said:

> They by no means get as much as with you; but they live cheap, have few wants, and are easily satisfied. Their food, clothes, and pleasures are of the simplest and cheapest kind.

Sunday is for them a real day of rest and recreation. They walk, dance, play, do as they please. There is no going to church and sitting mum at home as in the States. Then they have a certain sense of security against loss or danger from accident or sickness. In the first place, the law interposes in their behalf until accidents and causes of sickness are reduced to the lowest possible scale, but should one be sick or maimed a fund is there, supported partly by the help themselves and by the manufacturers, out of which they get enough to keep them until they get well enough to work again; besides they have now the old age insurance guaranty. This new measure, by the way, I may say here, as I have often said elsewhere, is not very popular among the people; they would to a man rather get a better rate of wages while able to work, thus enjoying life and laying by, as the majority undoubtedly would, a "dollar for a rainy day."

Touching again on exporting to the United States, he said the costs of transportation plus the tariff rates equaled a total tariff of about 50 per cent.; that to compete under such circumstances is not to be thought of; that the rates of import duties must be so lowered as to bring down the total expenses, duty, and transportation from 50 per cent. to 25 per cent. It may seem somewhat anomalous, but upon his assurance I am able to announce that thousands of our Singer machines (manufactured in Germany) are being sold all over Germany. It must be more anomalous still if, able to beat them on their own soil, at the very doors of their shops and factories, we can not at least compete with them—nay, drive them entirely out of the trade with our neighbors, the states of South America.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, October 20, 1889.

Railway supplies in Germany.—Consul-General Mason, of Frankfort-on-the-Main, under date of December 6, 1889, reports that the management of the Government railways recently solicited bids at Frankfort for a large quantity of steel rails and other material. The bidding was spirited, and included offers from nearly all the leading steel and iron makers in western and southern Germany. The following, which were the lowest bids in each class, may be interesting as showing the present bed-rock market values of railway supplies in this country:

	Per ton of 2,220 pounds.
31½ miles ingot steel rails, 5 inches high	$37.50
18 miles ingot steel rails, 4½ inches high	38.08
8 miles ingot steel rails	39.98
8,409 ingot iron ties, 9 feet long	36.89
Ingot iron switch sleepers	37.60
27,610 wrought-iron cross-ties	34.98

These prices are for delivery at the station nearest the works where the material is produced.

THE BUTTER LAW OF HOLLAND.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

I have the honor to inclose herewith a translated copy of what is here called, for short, the "butter law" (boternel), and which contains provisions intended to prevent deception in the butter trade in the Netherlands.

The law was passed on the 23d of June, 1889, and is, as I now read, to go into effect on the 1st of January, 1890.

The fact that American oleomargarine enters so largely into the manufacture of artificial butter produced in Holland may render it desirable that manufacturers, exporters, and other parties in the United States, interested in the fabrication of and in supplying the market of this country so extensively with oleomargarine, should have the law upon the subject, as herewith transmitted, brought to their notice.

To predict the effect the law will have upon the imports of the American product in question seems to me difficult and premature.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, November 4, 1889.

GAZETTE OF THE KINGDOM OF THE NETHERLANDS.

[Inclosure in Consul Eckstein's report.]

No. 82.—Law of the 23d of June, 1889, containing regulations for the prevention of deception in the butter trade.

We, William III, by the grace of God, King of the Netherlands, Prince of Orange-Nassau, Grand Duke of Luxemburg, etc.

To all who shall see this or hear it read, greeting. Be it known:

Whereas we having taken into consideration that it is desirable to make regulations for the prevention of deception in the butter trade;

Thus it is that we, having heard the council of state, and with the general deliberation of the States-General, have been pleased to permit, as we are pleased to permit by this:

ARTICLE 1. In the sense of this law butter is the article of fat in which, besides salt and coloring, no other ingredients appear except those coming from milk, and surrogate of butter is the article of fat which is no butter, but resembles it and can serve to replace it.

ART. 2. It is prohibited to supply a surrogate of butter or to have it in a shop or any other public place for sale if there be not on the covering, or, in default thereof, on the merchandise itself, the word margarine, or, if the ware be not prepared from oleomargarine, unless the word surrogate appear in distinct letters.

The size of the letters and mode in which these must be put on will be defined by our minister for the water department, trade, and industry, and published in the Gazette.

ART. 3. With the tracing of the facts rendered punishable by this law, the officials mentioned in article 8, Nos. 1 to 6, inclusive, of the Law-book for Criminal Instruction Proceedings, the mounted police, and all other officials of the imperial and communal police are charged.

ART. 4. The shops or other public places of sale where butter, or merchandise resembling it, are in store are accessible from 8 o'clock a. m. to 8 o'clock p. m., except on Sundays, even against the will of the tenant or the occupier, to the officials mentioned in article 3.

If the shops or other public places of sale be only accessible through a dwelling-house, then they may not enter these against the will of the occupier, except with a magistrate's or burgomaster's warrant, which warrant they are bound to show to the occupier if he demand it. Of this entry an official report (procès-verbal) must be drawn up within twice twenty-four hours and a copy sent to the person whose house has been entered.

ART. 5. The officials intended by article 3 are authorized to take samples from the butter in stock or like merchandise, from the shops or other public places of sale, as also from butter or like merchandise, in case the same is supplied outside the shops or other public places of sale. This authorization is not given if the merchandise resembling butter be labeled surrogate of butter in one of the modes prescribed in or by virtue of article 2.

For the sample the market price will be paid, if such a request be made to the official who takes the sample.

ART. 6. The samples intended by the former article being sealed by the appointed officials and with the addition of an official report (procès-verbal) stating the origin of each sample are to be sent as soon as possible to the authorized official at the home office, by whose care they will be transmitted to the experts appointed by our minister of the water department, trade, and industry, and charged with the analyzing of the samples in accordance with the prescriptions given by him and at a fee to be fixed by him.

The interested party is qualified to seal the samples with his own seal, or to authenticate the paper to which the seal of the official is affixed with his signature. In the official report (procès-verbal) is to be stated whether, and if so, in which way he has made use of this qualification.

ART. 7. The transgression of one of the regulations of article 2 of this law will be punished by imprisonment not exceeding two months or a fine not exceeding 200 guilders (say $80), and if, at the time the offense was committed, a year has not elapsed since a former condemnation of the offender has become irrevocable for the breaking of one of the regulations of this law, by imprisonment not exceeding four months, or a fine not exceeding 400 guilders (say $160).

He is not punishable who in case of transgression of article 2, section 1, proves that the merchandise wherewith the transgression was committed was bona fide believed by him to be butter.

ART. 8. In case of condemnation the judge may order publicity to be given to the judicial sentence, or to an extract therefrom, at the expense of the condemned.

ART. 9. The facts rendered punishable by this law will be regarded as transgression.

ART. 10. This law comes into force at a period to be hereafter fixed by us.

Be it known and decreed that this shall be published in the Gazette, and that all ministerial departments, authorities, boards, and officials whom it may concern shall see to its due execution.

Given at the Loo, the 23d of June, 1889.

WILLIAM.

The minister for the water department, trade and industry:

HAVELAAR.

The minister for justice:

RUIJS VON BEERENBROEK.

Published the 25th of June, 1889.

The minister for justice:

RUIJS VON BEERENBROEK.

EXPORT OF RUSSIAN CEREALS.

REPORT BY CONSUL-GENERAL CRAWFORD, OF ST. PETERSBURG.

From a large and exhaustive book just published in the Russian language by the department of railway affairs, attached to the ministry of finance, I offer the following brief summary of its contents to the Department, hoping that it may be of some interest to the exporters of cereals in the United States.

This enormous collection of statistics, which appears to have been gathered with the greatest care, and which has served as a basis for the regulation of the new freight tariff for the imperial railways of Russia, establishes the fact that, notwithstanding the strong competition which has existed for the last ten years between the United States and Russia in the commerce of cereals in Europe, the exports of Russia in these products to the ports of the Continent and of the United Kingdom have not decreased; but that, on the contrary, they have gradually increased from 2,402,277 tons for the five years from 1867 to 1871 to the considerable amount of 7,187,435 tons during the three years from 1887 to 1889. From this important publication it further appears that these exports of Russia increase in direct proportion to the product of the country, the average yield in the seven-year period from 1883 to 1889 being 28,478,571 tons, as against 25,939,285 tons, the average yield in the ten-year period from 1870 to 1879.

It appears to be quite impossible to give the exact quantity of cereals that Russia supplies to the different continental countries. For example, according to home figures, Russia exported during the years 1883–'87 a yearly average of 1,957,500 tons to England, whereas, according to English statistics, Russia only supplied the United Kingdom with 1,446,428 tons in the same period. After England, the principal consumers of Russian cereals are: Germany, 956,256 tons; Holland, 605,893 tons; France, 400,179 tons; Belgium, 293,661 tons; Italy, 255,535 tons; and Austria-Hungary, 205,714 tons.

If it is true that the Russian exports of cereals are steadily increasing, it is also true, as shown by this publication, that they no longer hold their former rank in the western markets of Europe. Russia's former place is now held by the United States, whose annual production of cereals actually exceeds 2,775,000,000 bushels, as against 1,609,500,000 bushels produced by Russia.

The annual demand for the period 1883–'87 of the consuming countries of Europe has been as follows: Wheat, 6,364,285 tons; rye, 1,298,125 tons; oats, 1,325,089 tons; barley, 1,395,000 tons; maize, 2,078,035 tons. Of this demand Russia has supplied the following annual average: Wheat, 2,111,785 tons, or 33 per cent.; rye, 1,086,428 tons, or 84 per cent.; oats, 835,714 tons, or 63 per cent.; barley, 573,750 tons, or 40 per cent.; maize, 245,893 tons, or 12 per cent.

It must be admitted, from the deductions from this publication, that the success of American competition is due to the initiative spirit and push of the people of the United States and to their technical improvements in their means of transportation, inasmuch as the cost of cereal productions in America is greater than that in Russia. For example, a pood, or 36 English pounds, of wheat costs the Russian producer 56 copecks, or 28 cents, whereas the same quantity of American wheat costs the producer 66 copecks, or 33 cents. The transportation of this cereal from Russia to London costs about 9 copecks per pood, or 4½ cents, whereas the American exporter pays 9.7 copecks, or 4.85 cents, per pood to transport his grain to the English markets.

The publication of the imperial minister of finance above referred to discusses at some length the question of entry duties on cereals which certain countries have thought best to impose, and this discussion tends to show that the exporting countries can hardly be said to bear the burden of this tax.

J. M. CRAWFORD,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, December 5, 1889.

WINE EXPERIMENTS IN CATANIA.

REPORT BY CONSUL LAMANTIA.

THE VINTAGE OF 1889.

The gathering of the grapes this year commenced in the latter days of September, and great activity prevailed in all the regions where extensive vineyards are cultivated in this district. This year the vintage has been an abundant one, especially so in the lowland of Catania, and in some localities the production has surpassed by double the quantity yielded last year. Such, however, can not be said to be the case in the hills, where the product varies from 80 to 90 per cent. of the the usual average output.

In the first fortnight of September several rain-falls took place which not only disturbed the operations of the vintage, but even injured in part the ungathered fruit. The weather became suddenly cooler, and the musts from the "palmenti," or squeezing barns, in course of extracting were removed after twenty-four hours, in a semi-cold state, without having undergone any sort of transformation. In preceding years, musts, after twenty-four hours' stay with the dregs in the vats, were removed in a boiling state and to some extent transformed. If this circumstance will prove of advantage or not is not yet ascertained, and studies on the matter have been initiated.

THE PHYLLOXERA.

The progress made by the phylloxera in Sicily, and the success of the Government in the methods adopted to stop it, have persuaded the viticulturists of this province to avail themselves of the facilities granted by the Government to protect the vine growth.

Numerous demands have already been made for the autumnal cure of vines by the use of sulpho-carbonic and the ministero di agricoltura in Rome has devised to name four boards of directors in Sicily for the application of the vine cure, and a report as to the final result of the method thus adopted will be published in due time. But, as already mentioned, notwithstanding the difficulities presented by the permanent existence of the phylloxera, the viticultural industry in this province has decidedly proven an abundant and satisfactory one for the present vintage.

EXPERIMENTS.

Further interference on the part of the Government to promote the wine trade has caused the establishment of what is called "cantina sperimentale," at Riposto, consisting in a sort of a large wine store, or cellar, where the different types of wine produced in the province are prepared and finished for experimental purposes. The Commission of viticulture assembled at Catania on the 10th of September, when a programme dealing with experiments on vinification was agreed upon on the following basis:

(1) Experiments on ampelite, by studying the musts and the wines produced in different vineyards in the province, amongst which are wines called "Nerello Mascalese," "il Mantonico," "il Nocera," "il Caricante," "il Catarratto," "il Venaccia," etc., taking them either separate or mixed up in determined proportions, with the object of specifying the name and synonyms of the vineyard, the special character of the plant and the fruit and the nature of the soil, the origin of the plant, the district, the proprietor, the date of gathering, the duration of fermentation, the weather prevailing at the time of harvest, a comparison between the different items of clusters, and, lastly, the chemical analysis of the must and of the wine.

(2) Experiments and studies regarding the rational vinification and that generally and locally used, so that in future all errors and old usages may be avoided or corrected.

(*a*) Comparison between the pressing of the grapes by the feet of man, with ironed shoes, as used in this district, and that done with shoes of soft leather or straw, or even bare feet, with the pressing of grapes by machinery.

(*b*) Comparison between the fermentation of grapes with the entire stalks attached to them with those having no stalks.

(*c*) Comparison between the fermentation with dry wine dregs and that with damp wine dregs.

(3) Influence of the density and acidity of musts on the fermentation of wines.

(4) Increase of acidity in musts.

(5) To study the means to diminish the high temperature that is reached by the musts during fermentation.

(6) To study the mixing of lime, plaster of Paris, and to make experiments on the use of substitutes, such as would be fosfato tricalcio, tartaric acid, etc.

The foregoing experiments, as far as it will be possible, will be carried out this season in cantina sperimentale, of Riposto, and some advantages are expected to derive therefrom.

WAGES IN VINEYARDS.

The rate of labor wages for cultivation and vintaging are as follows: For pruning the vines, 1.70 lira per day, besides one meal, minestra, and wine; for hoeing, 1.25 lire per day and wine, with no meal; for propping and cleaning the vines (woman's labor) 0.60 to 0.75 lira per day, no food; for gathering the grapes, 1 lira per day, with meal and wine; for weighers, 1.50 lira per day, with minestra and wine.

Food.—The minestra consists in oil-cooked food, made of a sort of leguminous substance, chiefly beans; it may be worth some 15 centimes per portion.

AREAS.

The surface of soil occupied by vineyards in this province is reckoned at 45,000 hectares,* by official returns, but it is known that its real area exceeds 500,000 hectares.

VINCENT LAMANTIA,
Consul.

UNITED STATES CONSULATE,
Catania, November 20, 1889.

SANITARY SERVICE OF AMSTERDAM.

TRANSLATION BY CONSUL ECKSTEIN OF AN ARTICLE PUBLISHED IN AMSTERDAM ON THE CITY SANITARY SERVICE.

Among the many questions now engaging the attention of the scientific public of every civilized state there is certainly no one of more importance than the scavengering of a large town. Indeed, the standard of health is one of the chief factors in the improvement and prosperity of the community, and should therefore be the first care of any town council. The most certain means to keep people in good health are a plentiful supply of good and wholesome food, pure water, fresh air, and a disinfected soil.

The time has not yet come when town councils can undertake to see that every citizen has an abundant supply of food, but they can watch over the quality and see that no adulterated food be offered for sale. The inhabitants of Amsterdam may, as a rule, rejoice in the possession of pure water. In how far, then, is attention given to the purity of the air and the disinfecting of the soil?

To obtain fresh air and a disinfected soil, a town must possess a good system of drainage, that is, one which is quick, regular, and perfect in its escape, and all animal matter must be perfectly disinfected, of which 95 per cent. of the refuse of a town consists, and which in a rotting state throws off those dangerous gases which infect the soil. Yet this refuse is only refuse in a town when heaped up in cess-pools, gullies, and drains. On the other hand, it becomes a blessing when taken to the right place, namely, the fields. This, in fact, is the only proper means to entirely disinfect a town.

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* 1 hectare=2.471 acres.

According to scientific inquiry, the excreta of every person, irrespective of age, averages 286 kilograms a year, seven-eighths of which is in a fluid state and about one-eighth solid, excellently suited for manuring purposes, and worth from 2 to 2.40 florins. The collective value of the human excreta of the population of Amsterdam represents, therefore, in theory, a sum of not less than 800,000 florins.

Now, Amsterdam possesses, at present, two systems by which part of its drainage is done. The first is the flush system, by means of which all impurities, both solid and fluid, with the exception of ashes, kitchen refuse, and street sweepings, run waste through brick drains into the canals. The other system, on the contrary, separates the refuse in such a way that only the rain and slop water flows through the drain, whilst the excreta is collected in a solid, unmixed form and sold to the agriculturist at a high price. This latter system is subdivided into the Liernur system and the exchange-tub system.

There is still another way of collecting fæces, which is unworthy the name of system. We refer to the cess-pools. These are still found in many houses. Hereafter we shall explain how the fæces are got out of these cess-pools. At present all excreta, except that which runs through the drains into the canals, the effects of which one becomes strongly sensible of by taking a walk along the Rose and Eglantine canals, all the ashes, kitchen refuse, street sweepings, etc., are conveyed to the extensive grounds lying in the Polder of Sloten on the Kostverloven Wetering, and commonly known as the Belt. They reach these grounds either through the net system of Liernur or by means of boats and dust carts.

The inventor of the first system, Captain Liernur, set to work on the idea that the flushing by water, leaving out of account its effects on health, caused a loss of millions and millions to the farmer, and he concluded that compressed air might be employed. This has the advantage of being everywhere present, and it diminishes nothing from the volume or weight of the matter. Let us briefly describe this system, as worked in Amsterdam, with some unimportant alterations: The excreta fall along the privy-pan into a funnel, which is so arranged that the matter drops directly into a turned up ∽-bend fastened to a stand-pipe; in the funnel is a grate to prevent any large solid matter from entering the pipe. This funnel is moreover connected by a pipe with the outer air, so that offensive gases are carried off. Near the funnel there is a lid over the ∽-bend, which can be screwed off for inspection and the removal of any obstacle in case of stoppage.

The different stories of a house are all connected with the same stand-pipe, which is extended above the roof level to obtain the necessary air pressure. At the bottom there is again a syphon, to which a distention valve is fixed, to carry off the gases which accumulate in the soil pipe; this valve turns the gases into another pipe, which also extends above the roof. As a rule, this second pipe is coupled onto the first in the attic. The syphon is also furnished with a lid, which can be taken off to remove any obstruction. The stand-pipe runs out into the middle of the street, where it can empty itself into a small reservoir, which can be shut off by a valve. The object of this is, in case of obstruction in any stand-pipe, to be able to shut off all the other stand-pipes and turn the full volume of air on this one, which is alone connected with the vacuum.

From the small reservoir runs a side escape, which empties all the privies at once into the main, this being connected with the street reservoirs by means of turn-cocks. Every block of buildings, therefore, must have a side escape into the main.

Several escapes empty themselves into the street reservoir, generally about six or eight; these reservoirs being mostly situate at cross streets. From the pumping station at the Kostverloven Wetering there run two chief mains, the one serving for the pneumatic working and the other for the conveyance of the soil through all the parts of the town where the Liernur system is completed. The street reservoirs are connected by taps with these chief mains.

At the central pumping station a steam air-pumping engine of 60 horse-power exhausts the large reservoir. The chief mains being connected herewith by the opening and shutting of taps, the air volume therein gradually diminishes, and this again reacts on the street reservoirs. Thus the air is exhausted from reservoir to reservoir. If, now, the tap of the escape-pipe from the buildings to the street reservoir be opened, then the vacuum extends itself once more to the excreta in the ∽-bend. From above there is a volume of air pressing downwards, which in its course carries every thing with it and empties the same into the street reservoir. When this is full, the taps of the chief air main are turned off and the tap of the chief conveyance main opened, which has also been exhausted. Above the reservoir is a valve, and this being opened the outer air presses on the soil and drives it into the chief conveyance main, and as the engine continues to exhaust the air the soil speeds along to the large reservoir at the pumping station. The speed would become something enormous if the mains were quite horizontal; but, as they sometimes rise and fall, this serves to moderate the speed. At the pumping station the soil is received in two lower reservoirs. An arrangement brought into action by the pumping-engine alternately opens and shuts the taps, so that automatically, as soon as one reservoir is filled its taps are closed and the taps of the next one opened for the reception of the matter. In the same automatic way the matter is brought up into the two upper reservoirs, whence it flows off to the different quarters where it is required.

The gases which are drawn off from the chief main are burnt in the fires under the boilers. At the end of 1888 the number of blocks of buildings connected with Liernur's system was 2,847, and these blocks were inhabited by 50,240 persons. The quantity of soil amounted tc 44,840,150 liters.* To the Belt Liernur-fæces are also brought from the temporary arrangement by boats. This is the so-called tub system with drop pipes. The fixing of the standpipe and the tunnels attached is just the same as in the other system, only the soil in this case runs into small reservoirs capable of containing from 200 to 300 liters, situated in front of the house, whence it is pumped by an air-pump into tanks and conveyed by boat to the Belt. Last year 35,121,500 liters were collected in this way. The exchange-tub system is distinguished by its simplicity. It is in working in 334 blocks of buildings, and requires 1,505 sets of tubs, which are daily carried from the houses in well-closed carts and conveyed to the Belt, where, in a special building, they are emptied, cleansed, and disinfected. The average number of tubs exchanged every day is 810, and the quantity of soil collected in this way amounted last year to 1,500,000 liters. The original intention was to turn the matter collected by the Liernur system and the exchange-tub system into "poudrette," and a "triple-effect" was set up for this purpose. To carry out this, however, it is necessary to allow the matter to thicken into a paste, and, as this did not succeed, the plan had to be given up. At present tests are being made to turn the fæces into sulphureted ammoniac, which so far have been very successful. If the Liernur-fæces can not be worked up artificially, they are taken to the compost sheds (to be described hereafter), the reservoir of fæces, or to the boats for conveyance to the country.

Now, what do we find at the central Belt? (1) Liernur-fæces collected by the air-pumps; (2) Lienur-fæces brought in by boat; (3) fæces from the exchange tubs. But this is not all. The cess-pool carts which patrol the back quarters of the town, and into which the fæces are poured in a most unsightly manner from all sorts of vessels, brought in 7,277,000 liters in the year 1888. And now comes the residuum of the night work. In 1888 there were emptied 871 privies with the Latrine cleansing machine, and in 83 cases it was necessary to carry the soil in buckets by hand, which produced 10,651,000 liters. Such a machine empties a privy without smell. A thick hose is so placed in the cess-pool as to have its termination below the matter. This hose is then fastened to an iron cylinder or a large, air-tight barrel capable of containing 1,500 liters. By means of an air-pump the cylinder is exhausted and the matter flows pneumatically into the barrel. A gutta-percha ball shuts off the connection as soon as the barrel is full. The gases are drawn off from the pipe and burnt in a fire attached to the pump, so that there is no smell. One night we convinced ourselves of the excellent qualities of this machine, which, being worked by hand, causes no noise. Some means must be found to dispose of this immense mass of fæces consisting of nearly 100,000,000 liters, or 100,000 cubic meters. As we have said before, part of it is turned into sulphureted ammoniac, and another part is taken off by boats, consequently we need not be concerned on this head.

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* 1 liter=2.113 pints.

In the meantime the dust carts in their daily rounds collect an immense mass of ashes and refuse at every house and in every street. Large quantities of refuse and street sweepings and floating matter from the canals are brought in by boat — in 1888, *inter alia*, 4,535 carrions. The abattoir sends also its offal. All this material is sorted at the Belt, and objects of any value set aside, such as rags, paper, iron, glass, etc., and then the rest is taken to the compost sheds, where it is flooded with the Liernur-fæces, and so the compost manure is made.

The street sweepings and flotsam of the canals, which are not used in the compost sheds, after being assorted and dried, are sold in trade and bring a good price. What still remains of the fæces is put into a large brick reservoir 65 meters long by 25 meters broad and 4 meters deep, whence it is sold for the manuring of fields and sandy soil. The market gardeners are the largest buyers, this article being specially useful in the cultivation of cauliflower. In 1888 the total receipts for manures of all kinds was $55,840.

The premises of the central Belt are entirely surrounded by water, which greatly facilitates the loading and unloading of boats, whilst the grounds are also rendered easily accessible to the dust carts. A branch line connecting these premises with the Dutch Railroad is still a pious wish.

If one pays a visit to the Belt in the morning, one sees a continual streaming in and out of carts and boats, which deposit their various loads here. The quantity of ashes and refuse brought in in 1888 amounted to 25,860 cart-loads, 2,813 barrow-loads, and 9,470 boat-loads, making a total of 117,363 cubic meters.

There is scarcely an institution of any importance which does not possess its cabinet of curiosities, and the Belt has also its cabinet. South of the pumping station proper, on the other side of the canal which surrounds the premises, there is, besides the town disinfecting rooms, a large oblong shed for storing objects found among the ashes and refuse. Here we may learn to know that the most unsightly-looking objects and bits of paper have their comparative value.

From the nature of the refuse collected at every door the variety of things to be found herein is considerable. Here, in the first place, what we commonly denominate refuse is classified, linen and cotton rags taking the foremost rank. These are first put through the mill, which cleanses them from all dust, then washed and dried and packed in bales. The paper manufacturers know their value. But even rags are sorted once more. We find the linen, the cotton, the muslin, and woolen departments.

Above all, the carpet department attracts attention. The Smyrnas, Doorniks, Brussels, and Deventer carpets are all neatly arranged, and their value is not inconsiderable. Nay, even amongst the rags their distinction is kept up. The proud Smyrna would never be associated with a piece of stair-carpet or cocoa matting.

Broken glass has here also an important place. And, strange as it may seem for a city like this, where last winter hundreds of people were daily supplied with a loaf of bread gratis, there is a large tank full of pieces of bread ranging from the finest sorts down to the black bread. This can, however, be turned into fodder for the cattle. Shoes are by no means wanting; there are bales and bales of old shoes and boots in the warehouse which will find a buyer. In fact, we have been told that the beautiful leather articles of Vienna and the cuir de Russe are manufactured from old boots, which are ground to powder and pressed. Many of the beautiful-looking albums we see are made in this way.

There are bales of old and new tin articles, hundreds of tins and metal objects, such as tea-pots, coffee-cans, spoons, forks, etc., heaps of cotton-down, horse-hair, and such like; all lie assorted just as neatly as we find objects in a fashionable shop in the Kalverstvaat. Twice a year these things are put up at auction. These premises are during the whole day an ever-changing scene of life and movement. The carts drive in and out, the boats come and go, and the five and twenty tjalks are loading or awaiting their turn.

As a matter of course, the cartage and working of so many thousand cubic meters of material, and the sweeping of the streets, squares, and canals, require a large number of work people. In addition to the inspectors, about 300 workmen are employed. For collecting the ashes and refuse there are 12 commanders, 52 foremen, 52 assistants, 35 barge-men, 2 masters for the tug-boats, 2 engine drivers, and 65 horses. Further, 10 men are engaged in collecting the flotsam from the canals. For sweeping the streets there are 6 commanders, 12 drivers for the sweeping-machines, 70 workmen, 6 drivers for the water-carts, and 20 horses. To water the streets in the height of summer 30 workmen and 6 horses are required. Seventy-nine workmen are necessary to look after the drains. At the Belt itself there are 2 bosses, 2 commanders, 107 workmen, 1 engine driver, 1 cooper, etc.

The plant and the 115 horses required for the sweeping-machines, exchange tubs, Latrine carts, refuse carts, etc., are stationed on the Bilderdijkkade, generally known as the central stables.

This depot is also well worthy of a visit. The premises are surrounded by palisades, flanked by the dwellings of the two bosses, and the whole plant, such as sweeping-machines, exchange-tub carts, arranged under awnings which are made fast to the walls of the stables. This is probably done for economy's sake, but it does not appear to me sufficient protection against wind and weather.

On the left are the sheds, a smithy, a cartwright's shop, the painter's, the cooper's, and the saddler's shops, and the warehouse of all sorts of articles necessary for repairs or the replacing of the materials in use. The wages paid to the workmen in these shops amounts to $3,734.

The stables, however, are the most interesting of all. They are built in three long rows, and between them the space intervening is fitted up for cart sheds. Each stable has room for forty horses, allowing 1.7 meters of standing room for each horse. This is none too much room, as these horses are chosen for their size and draft powers. Among them are some really fine-looking animals, giants we may call them in their domain.

For these stables there are two bosses, assisted by an upper groom and six stable-men.

The largest and strongest horses are employed for the sweeping-machines, and it is an interesting sight to see the machines drawn by these gigantic horses at 12 o'clock at night file out through the gates to commence their work in the different quarters of the town.

As a rule, there are twelve horses, twelve drivers, twelve machines, sixty-six sweepers, and from twelve to fifteen barrows engaged in this service every night. In dry weather the sweeping-machines are preceded by the water-carts. The sweepings are wheeled in barrows to the side of the canals, shot into boats, and conveyed, early in the morning, to the Belt. In this way all the streets get a thorough cleansing once a week, and the principal streets and squares three times a week.

The drawing of the sweeping-machines is very heavy work; it requires the strongest horses, and these are very soon unfit for this service. The stables are excellently well kept, and are specially remarkable for their cleanliness and airiness. On these premises there is also a shoeing smithy, a horse pond, and a coach house and carriages for the service, besides a hospital stable for the horses. At present the latter is, fortunately, unoccupied, and it struck us as being small, for there is only room for three horses.

On these premises there is standing room for two hundred and fifty carts, and, with the fodder and other requisites, the expenses are not small. In the estimates 40 cents a day are set down for the maintenance of each horse. For 1890 the sum of 21,648 florins has been put into the estimates for the purchase of new horses, fodder, shoeing, saddlery, etc., and for the maintenance of the rolling stock 4,260 florins. The average price paid for a horse is 204 florins. In 1888 there were required 238,710 kilograms of hay, 318,280 kilograms of oats, 173,805 kilograms of straw, or, for each horse per day, 6 kilograms of hay, 8 kilograms of oats, and 4.4 kilograms of straw; and the total expenses for forage and bedding straw came to just over 41 cents per horse per day.*

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* The florin = 40.2 cents American, so that the 41 cents here referred to doubtless mean Dutch cents, 2½ of which equals 1 American cent.

The work of cleaning the streets is heaviest after a fall of snow. Then snow-plows are used. To clear away the snow from the bridges salts of potash are used with good effect. At such times men, horses, and material are all put to the strain, and often some hundreds of men are called in to assist temporarily. In warm weather the streets have to be watered by the hose from the fire-plugs or by the water-carts. At all times the kennels and drains must be looked after, the cess-pools, large and small, deepened, and the urinals kept clean, and all the refuse sent on to the Belt. This item in the expenses is set down at 20,000 florins. There are in Amsterdam 3,567 large cess-pools and 7,495 smaller ones; the number of urinals is 237. These are cleansed once every day, flushed, and painted over with a mixture of carbolic acid and black varnish. The town is divided into six divisions, which are again subdivided into sections, so that each dust cart and each boat has its appointed work to do. For each division there is a responsible superintendent.

Though it appears we are still far from perfect, yet we are on the right track to gradually carry out the most urgent demands of sanitation. People who knew Amsterdam ten or fifteen years ago readily confess that rapid progress has been made; and if this service demands an estimate of 218,480 florins for 1890, who will say this amount is too much to pay for pure air and a disinfected soil?

The Liernur system is certainly the system of the future, and this question will no longer present any difficulties when Amsterdam gets its net completed. Then the difficulty will arise, how to get rid of the immense mass of fæces which will be accumulated. Perhaps then the heath company will become a large buyer, and the refuse of Amsterdam will be conveyed to the heaths of Guelderland and North Brabant; there it will not be refuse, but gold.

CEREAL PRODUCTION OF RUSSIA.

REPORT BY CONSUL-GENERAL CRAWFORD, OF ST. PETERSBURG.

I herewith submit a brief report, based upon an extract from the "Annual Review of Rural Economy in Russia," as published by the ministry of imperial domains, and showing the comparative productions of the various cereals for the past three years;

Grain.	1887.	1888.	1889.
	Bushels.	*Bushels.*	*Bushels.*
Rye	750,000,000	711,000,000	615,000,000
Winter wheat	99,600,000	112,200,000	42,000,000
Spring wheat	180,600,000	186,000,000	160,800,000
Oats	621,000,000	549,000,000	540,000,000
Barley	169,200,000	159,000,000	121,200,000
Millet	52,500,000	54,900,000	39,900,000
Buckwheat	62,940,000	64,800,000	60,600,000

These figures indicate, in round numbers, the amount of cereals raised in European Russia, with the exception of the Baltic provinces. The crops of spring wheat and of oats, while considerably less than those of the two preceding years, are regarded as satisfactory. The same is true of the yields of barley and buckwheat, while the rye crop is less than the average of the last five years by 58,800,000 bushels, and that of winter wheat for the past year (1889) is 27,600,000 bushels less than that of the years 1883–'87.

The hay crop is the least satisfactory, perhaps, of the farm products, the average per acre being 1,565 English pounds in 1889, as against 2,529 in 1888, for the black lands, and 1,940 pounds in 1889, as against 2,663 in 1888, for the provinces of common soil.

It will appear from the following table that the beet-root yield for the present year is less than that of the preceding year by the considerable amount of 369,270 tons.

Beet-root crop of 1889, as compared with that of 1888.

Names of provinces.	1888.	1889.
	Tons.	*Tons.*
Besarabia	13,661	15,428
Catherinoslaw	19,551	6,428
Poltava	42,613	41,163
Kharkoff	578,909	595,000
Voronege	92,487	84,733
Kieff	1,218,320	1,068,404
Podolia	826,478	722,294
Volhynia	228,479	228,516
Koursk	356,670	324,868
Tchernigoff	111,615	137,541
Orel	7,811	6,019
Tamboff	85,073	45,716
Toula	32,452	30,741
Samara	33,412	38,421
Warsaw	302,809	267,419
Kalisch	58,223	59,359
Pietrokoff	15,044	16,071
Lomja	14,953	11,250
Kielce	31,821	19,832
Lublin	43,054	39,831
Plotsk	38,169	30,857
Radour	34,182	29,359
Siedlice	15,750	13,016
Total	4,201,536	3,832,266

J. M. CRAWFORD,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, November 14, 1889.

COTTON INDUSTRY AND COTTON GROWING IN RUSSIA.

REPORT BY VICE-CONSUL WERTHEIM, OF MOSCOW.

By far the greatest trade in importance between Russia and the United States being the importation of cotton, it may be interesting to record the progress and development of the cotton industry of this vast Empire from its earliest stage up to the present. With this view, I have collected all the information I could discover relating to the subject, and shall endeavor to give it in as succinct a form as I can.

EUROPEAN RUSSIA.

Experimental stations for cotton growing have been established in the government of Samara and other southeastern provinces of European Russia, but so far every attempt to grow cotton at these stations has proved a failure. The plants have invariably been nipped by frost soon after coming up. Nevertheless, those conducting the experiments ascribe the failures principally to errors committed through inexperience, and are very hopeful of ultimate success.

HISTORY OF THE COTTON INDUSTRY.

Four centuries back Russia had no other source but Asia to look to for her supplies of cotton goods; Persia was the principal purveyor, and the route was via Astrachan, now a busy city, near the mouth of the Volga and close to the Caspian Sea, in those days a Tartar settlement and seat of a khanate or Tartar kingdom.

It was in the year 1553 that a British vessel, the *Edward Bonaventure*, succeeded in entering the White Sea and reaching Archangel (near the mouth of the River Dvina), the only accessible port that Russia could boast of in those days. This event led to the formation of a British factory at Archangel a few years later.

In 1555, Ivan the Terrible, who was then Czar, granted a charter to a British trading company, conveying to it the exclusive right of trading with Russia, and soon afterwards hand-looms were introduced into the country, but all the yarn used for weaving was brought from England.

During the fifties or sixties of the seventeenth century Emperor Alexis (Michailovitch) caused a number of British spinners to come over to Russia, in order to teach his people the art of spinning and weaving.

In the eighteenth century cotton weaving had already grown into an important branch of Russian industry, more especially in the two adjacent governments of Moscow and Vladimir, the villagers being mostly employed in weaving for account of the Moscow merchants, who supplied the yarn, paying for the weaving of it and finishing the cloth at their own works in Moscow. At about this time cotton printing was first practiced in this country.

The first spinning-mill was built in Moscow in 1808, and in 1811 there were already no less than twenty-seven of them. After the burning of Moscow in 1812, when a number of mills were destroyed, those in the outlying district made headway.

The first spinning-mill company was founded in 1835. A number of others soon followed, but the cotton industry did not progress as steadily as a good many other then existing industries; the reason for this lack of progress was the want of good machinery. The best description of it was at that time manufactured in England, but the exportation of it was by law strictly prohibited. The consequence was that the Russian manufacturers had to put up with such machinery as they could procure from Belgium and

France, mostly of inferior workmanship and old design. When, in 1842, the British Parliament abolished the prohibition, cotton spinning rapidly advanced in Russia, and has continued to progress ever since; the increase of duty on yarn imposed in 1850 stimulated its further development very considerably, when, during the emancipation of the serfs and the struggle in America between the North and the South (1859 to 1863), it had its first severe trial to go through. The price of cotton advanced no less than 400 per cent., and simultaneously labor grew scarce; a condition of things that shook the industry to its very foundations.

The great demand for cotton was soon responded to by Bokhara, and, though the quality was bad and the spinners lost 30 per cent. in waste, it was a great boon to them at a time when the supplies of American cotton had suddenly dropped from 40,000 to 6,000 tons. So seriously was the trade affected that of the fifty-seven spinning-mills existing in 1860 only thirty-three remained in 1863, and within the same period the weaving-mills were reduced from six hundred and fifty-nine to three hundred and thirty-eight.

But matters soon mended. The many railroads just then opened out in the Empire soon brought cheap labor, and, owing to the enormous production of cotton in the United States in 1863, the supply was abundant. From 1863 to 1867 the cotton industry of the country increased in all its branches by 10 to 25 per cent., and the use of cotton fabrics became so common and wide-spread that the quantity of cotton required for their manufacture, which had, in the beginning of this century, not exceeded 1,500 tons, now embraced the respectable figure of 120,000 tons.

Table showing the gradual increase of the importation of cotton into Russia.

Year.	Tons.	Year.	Tons.
1824-'38, per annum	1,500	1848-'50, per annum	20,000
1833-'43, per annum	5,000	1851	22,000
1844	9,000	1852	27,000
1845-'47, per annum	12,000		

From the year 1870 there are records of the different descriptions of cotton imported into the country, as indicated by the following tables:

Table showing the proportion of cotton imported from different countries for the years 1884 until 1888.

Whence imported.	1884.	1885.	1886.	1887.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
United States	51	37	33	42
England	20	15	23	26
Germany	19	17	18	15
Egypt	1	22	20	10
Persia	7	7	4	3
Other parts of Asia	2	2	2	4

Table showing value of industry.

Description of industry.	Value in United States gold.	Description of industry.	Value in United States gold.
Spinning	$84,520,000	Finishing	$2,180,000
Weaving	30,175,000	Tape	1,650,000
Dyeing	31,850,000	Total	151,525,000
Wadding	1,150,000		

Of this amount about $40,000,000 is estimated to be the value of the cotton.

Table showing the increase of the importation of cotton for the years 1870 to 1889.

Year.	All cotton but Asiatic.	Asiatic cotton.	Total.
	Tons.	*Tons.*	*Tons.*
1870	40,000	3,000	43,000
1872	52,000	3,280	55,280
1874	69,000	3,250	52,250
1876	70,000	2,600	72,600
1878	96,000	4,080	100,080
1880	75,000	5,175	100,175
1882	100,000	5,550	105,500
1884	97,000	7,200	104,200
1886	111,000	4,760	115,760
1887[*]	156,000	10,000	166,000
1883	106,000	16,230	122,230

[*] The great increase in the import for the year 1887 was owing to a rumor that the duty would be raised in 1888.

ASIATIC RUSSIA.

Cotton has been grown in central Asia since time immemorial; it was there when Alexander of Macedon invaded Persia, and was noticed by the ancient Greeks at Bactria. The plant there cultivated (*Gossypium herbaceum*) is said to be a native of southern Asia.

In the ninth or tenth century this plant was first introduced into China, and then spread to Japan.

Bokhara.—This is the most important of all the cotton-growing territories in the whole of central Asia, and she is rapidly developing the cultivation of indigenous cotton, of which, from August, 1888, to August, 1889, she sent to Russia over 14,000 tons.

Bokhara never produced any quantity of cotton until 1864, when, attracted by the price paid for it in Moscow ($715 to $747 per ton) she rapidly increased the production; but, a few years later, on prices again falling as low as $200 the ton, she reduced it considerably, until the opening of the Transcaucasian Railway, when cotton growing was once more revived in Bokhara, and in three years she has quite doubled her supplies to Russia.

Khiva.—Khiva supplies Russia with quite six times the quantity she did but a few years ago. The cotton is of high quality, and said to be equal to

American uplands. Three years ago the outcry was that it was very badly ginned, full of seed, sand, and grit; but it is now greatly improved, and quickly recovering from the bad favor it was in some time ago on the Moscow market.

An average crop in Khiva gives 10 to 13 cwts. of pods, or 3 to 4 cwts. of ginned cotton, to 70 pounds of seed.

The cotton is generally collected and bought up in the month of January and pressed in very rudely made presses of primitive construction.

A great desideratum for central Asia is a light portable press of the most simple construction.

All the cotton destined for Russia is carried in boats from the southern part of the oasis to Kungrade, where it is packed in bales of from 252 to 270 pounds in weight and dispatched on camels to Orenburg.

These caravans generally start from Kungrade about the middle of March and reach Orenburg about the middle of May, taking two whole months over a journey of only 600 miles, and sometimes three. The cause of this delay is that the Kirghises, anxious to feed up their camels, half-starved during the winter, go great distances out of their route in search of good pasturage.

This mode of transport incurs much damage and loss, and since the opening of the Transcaucasian Railroad the old route is being rapidly abandoned for one by the River Arnu to Charjue, and thence by railroad to the Caspian as one both cheaper and more convenient.

Turkestan.—Cotton is extensively cultivated in the Sirdar, Samarcand, and Ferghana territories. The cotton raised in the Ferghana district is said to be the best.

In Turkestan cotton is grown as far north as the River Arys, a right affluent of the Syr, where, close to Chemkend, it is extensively cultivated, ripening in October. It is of a coarse, short staple. Attempts have been made to cultivate cotton still further north, near Kasalinsk (46° north latitude), and fair crops were raised, but it grows too coarse to be of any value. This is a proof that the plant will grow pretty far north, and that it is by no means a tropical one; but certainly it improves in the south, for Tashkend cotton is superior to that of Chemkend, and Ferghana is still better. The yield varies from 150 to 250 pounds of ginned cotton per acre; 189 pounds is considered an average crop.

Some of the indigenous cotton cultivated at the experimental station at Tashkend showed signs of considerable improvement over that raised by the natives, and it is hoped that they will profit by the opportunities offered them to learn a more rational mode of cultivation and thereby improve the quality of their produce.

It may rightly be said that a new era has begun for Turkestan since the introduction there of the American plant. The local government has very actively encouraged cotton growing in the district. Fresh upland seed was freely distributed, together with a pamphlet in the native tongue giving simple directions for the proper mode of cultivation, and periodical meetings of the planters were convened for the purpose of communing with each other and exchanging ideas.

The development of cotton growing in Tashkend will be seen from the following table, showing the annual increase of land put under cotton for the last four years:

Year.	Acres.	Tons of cotton.
1884	850	150
1885	2,800	1,600
1886	5,600	1,000
1887	40,000	3,500
1888	99,000	8,600

In 1886 the crops were severely damaged by frost. The following table shows the quantity of cotton imported into Russia from different parts of central Asia, the Caucasus, and Persia from August, 1888, to August, 1889:

	Tons.
Bokhara (indigenous cotton)	14,200
Kokhand, Khiva (indigenous cotton)	10,500
Tashkend, (from American seed)	4,000
Erwain (from American seed)	2,000
Caucasus (indigenous)	3,100
Persia (indigenous)	5,000
Total	38,800

With the extension of trade between European Russia and central Asia the great need of a safer and more ready communication is sorely felt, and several projects of quicker and safer routes are under consideration. One of these is to connect the Transcaucasian Railroad with the Caspian at Petrovsk, where the navigation is very seldom interrupted for more than one month in the year, and is said to be admirably adapted for a port.

Here the traffic could be maintained almost the whole year round, as against the few summer months the Volga is navigable, a river presenting great difficulties to navigation, owing to her shifting sands and frequent scarcity of water, and is ice-bound for six months in the year.

N. WERTHEIM,
Vice-Consul.

UNITED STATES CONSULATE.
Moscow, November 18, 1889.

No. 113——14.

COMMERCE AND INDUSTRIES OF SWITZERLAND.

REPORT BY CONSUL CATLIN, OF ZURICH.

I. COMMERCE OF ZURICH.

There has been no marked change during the past twelve months, either for the better or the worse, in the commercial and industrial outlook of this section of Switzerland. Spasmodic activity in the silk industry has been noticeable here and there, and shipments to foreign countries, notably to France, have been large. The French Exposition has given some impetus to trade and to manufacturing, and Swiss exhibitors have, in turn, carried off many of the honors which the exposition has offered. A disturbing element in all commercial circles during the year has been the political misunderstanding with Germany growing out of the Wohlgemuth affair and the uncertainty as to what results such misunderstanding might lead. For a while political feeling ran high here, and several instances were mentioned in the press where Swiss merchants had canceled all their orders with German manufacturing houses. The rumors, too, of vexatious frontier regulations, hampering trade and intercourse between the two countries, had also their influence for a time on traffic; and, though the trouble has now happily been settled by moderate councils, yet its effects must not be left out of account in striking a balance-sheet of the year's business. On the other hand, the renewal of favorable commercial treaties with both Germany and Austria, and the existence of the most favored nation clause in Switzerland's treaty with Italy, have set at rest the many fears of a tariff war with those countries, to which allusion was made in my last report. To sum up the situation, it may be briefly stated that were there no clouds on the European political horizon, and were it not almost a certainty that, in the event of the outbreak of a general war, Zurich and the adjacent sections of Switzerland would at once be transformed into the seat of war, the commercial situation in this section at the present time might be considered as generally favorable and satisfactory.

Now, it may be further remarked that what would in this country be termed a favorable and satisfactory commercial situation differs very materially from that to which we in the United States would apply the same rating. The conditions of life, of trade, of industry, are so essentially different, there are with these people so few and with us so many and uncertain factors entering into the great problem of the annual balance-sheet, that what would seem to us but a meager crust of bread here assumes the dimensions of a loaf.

Yet there is compensation everywhere; and if the Swiss merchant, manufacturer, or agriculturist is unfortunate in having to reckon with none of those golden possibilities or surprises which give a sort of Aladdin coloring to the ventures of his brother in Denver or Paterson, or the fertile wheat fields of the Northwest, he may yet, on the other hand, sleep with moderate security in the thought that no sudden crash is coming to sweep away in an hour his savings of years. In other words, business here, as everywhere in the Old World, is characterized by moderate gains and but slight fluctuations; wealth is only amassed by slow and laborious processes, and to him who can look forward to a margin of profit sufficient to pay a moderate interest on his capital and labor invested the situation here is to be considered in the main a favorable and satisfactory one.

Declared exports.—The exports to the United States from this consular district during the year ending September 30, 1889, were in detail as follows:

Articles.	Value.	Articles.	Value.
Aluminum	$254.14	Plushes, velvets, and jutes	$46,306.50
Beef extract	5,632.73	Scientific instruments	1,340.87
Books	479.07	Silk:	
Candles	606.64	Bolting cloth	127,356.67
Cotton:		Embroideries	1,440.27
Embroideries	7,450.45	Hosiery	18,941.71
Cotton goods (including hosiery)	5,778.17	Piece-goods (half-silk and silk)	892,069.15
Yarns	833.60	Raw	2,094.69
Felt goods	269.05	Spun	937.13
Fossils	262.70	Straw goods	197,239.03
Fountain pen-holders	704.16	Wines and liquors	2,367.94
Hair cloth	389.89	Wood carving	83.96
Hardware and machinery	5,559.04	Woolen goods (including hosiery)	10,747.78
Household effects	3,420.61	Sundries	1,921.49
Linen goods	246.36	Total	1,348,914.62
Oil chromos	13,920.85	Total previous year	1,335,630.34
Plants	259.97		

This shows, as will be observed, a slight increase, viz, $13,284.28, over the exports of the corresponding previous year. The largest item of exports is, as usual, in silk goods.

Tourist travel.—The growth of Zurich as a tourist center has become notably apparent during the season just closed. In previous reports allusion has been made to the enormous outlays made by the city in beautifying its lake front and rendering the city attractive to strangers. The fact that the Gotthard, the Arlberg, the Stuttgart-Berlin, and the Basle-Paris lines all center here, and that one can now take a through coach from Zurich to Paris, Milan, or Vienna, has naturally much to do with this result; but the greater part of the credit is due to the energy of the people themselves since they became aroused to the possibilities of Zurich's commercial future. During the year the new funicular railway connecting the Limmat quay with the polytechnic school has been opened to public travel, and steps have been taken to lay down an entirely new system or net-work of horse-railways in addition to those already in operation. There were, during the year ending June 30, 1889, three hundred and thirty-five new buildings erected, as compared with two hundred and fifty-eight in the preceding year. The crowds of tourists from Germany, England, and the United States have been, during the past season, unprecedentedly large, filling the hotels at times to overflowing. And not only these, but special excursion trains from as far distant as Prague or Buda-Pesth and the lower Danube have brought hither hundreds of strangers en route for Paris to enjoy for a day or two the hospitality of Zurich. By the joint enterprise of the authorities, railway companies, hotels, and private citizens there has been established in the exchange what is known as a "stranger's inquiry office," for the purpose of extending to all visitors who may apply such information as they need. Under the auspices of this bureau open-air concerts, excursions by steamer on the lake, public illuminations, regattas, and various other entertainments calculated to render a tourist's stay agreeable are organized during the summer season, and with the result that where formerly nearly all the stream of tourist travel passed through Zurich without stopping, that city has now become one of the most popular and attractive resorts in Switzerland. The number of tourists registered here during the season just closing amounts to 123,587 persons, as compared with 112,426 registered during the preceding year.

2. COMMERCE OF SWITZERLAND.

Silk goods.—In this branch of trade the year opened with considerable activity. In this connection it may be noted that the United States now stands third on the list of countries importing the products of the Swiss silk looms, viz:

Countries.	1886.		1887.		1888.	
	Silks.	Half-silks.	Silks.	Half-silks.	Silks.	Half-silks.
	Francs.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
France	22,224,399	1,281,923	24,247,758	1,237,014	25,559,116	1,648,570
England	14,323,958	2,442,041	14,489,996	2,658,991	15,459,879	3,620,135
United States	11,381,102	4,372,800	7,915,712	6,021,645	7,683,082	6,552,545
Germany	6,594,834	525,571	7,097,616	641,940	6,973,215	608,201
Austria	2,394,060	93,680	2,016,515	127,457	1,417,842	60,405
Italy	1,038,199	633,909	998,662	730,849	703,592	513,230
Elsewhere	5,950,837	1,653,351	5,691,363	2,066,874	5,714,864	1,609,741
Total	63,907,389	11,003,275	62,457,622	13,484,770	63,511,590	14,612,827

During the year nouveautés took a leading place in the trade, but in the fall of 1888 and the spring of the present year fashions tended strongly to imprimés, damasks, and moires, of which, unfortunately, the Zurich manufacturers were prepared to furnish but a limited quantity. In unis goods, merveilleux kept the lead, with also a good demand for surahs and the various kinds of armures. Tailles were but little called for, but the demand for taffeta linings rather increased. Marcellines, lustrines, and gros-des-Indes found regular sales. Colored satin cotton trams for sleeve-linings were largely ordered, while, on the other hand, ordinary black satins and those dyed in the piece were but little sought after. Silk handkerchiefs were flat, but showed some activity toward the close of 1888. Velvets and plushes are not sufficiently in fashion to enable their sale to keep pace with the increased production resulting from the use of mechanical looms, and many such looms are consequently being made over into hand-looms again.

The recently concluded commercial treaties with Germany and Austria have been the means of securing for Swiss silk manufacturers a more favorable entry duty into both countries. Germany has reduced the duty on 100 kilograms of silk from 800 to 600 marks, and Austria to 200 guldens in gold on smooth and 400 guldens on other silk wares.

During the past year two establishments for the finishing of moires have been put in operation, thus enabling Zurich to manufacture, independently of Lyons, French, Alsatian, and what are known as "à réserve" moire goods. Moire antique must, however, as hitherto, be still sent to Lyons for finishing.

Colored piece-goods are no longer manufactured in large quantities here as formerly, notwithstanding the fact that such goods can, with few exceptions, be both dyed and finished here. In half-silk linings the finishing establishments have been of late unusually busy, and have thus managed to cover to some extent the falling off in black satin.

Silk bolting cloth.—The decrease of consumption in this branch of silk manufacture, which has made itself so seriously felt for some years past, continued the last year as well. The principal ground for the decrease lies in the use of new milling machinery, requiring a finer quality and a reduced quantity of silk gauze. The price, consequently, has fallen so low that fears are entertained that within a short time the manufacture of bolting cloth will have to be practically abandoned.

Cotton goods.—During the past year it is estimated that there were about 1,680,000 spindles in operation in all Switzerland, to supply which there were consumed 239,077 bales of cotton, of which 97,743 were imported from America and 86,024 from Egypt. Prices, however, were so unfavorable, owing to foreign competition, that a correspondent of the mercantile association of this city draws the following gloomy picture of the outlook of cotton manufacturing interests in this section. He says:

> The relations which, during 1888, existed between the prices of raw materials and those of manufactured goods occasioned, for the most part, losses to the producers. A spinning and weaving establishment was destroyed by fire, and from all appearances no more spinning or weaving will be carried on at Cham. This continual retrograde movement in the number of Swiss spindles is a melancholy indication. While in the German Empire cotton-mills are springing up like mushrooms, here with us no one has any courage left to start one. On the contrary, our industrial population is showing a preference for going to Italy, and many a young and skilled Swiss workman is obliged to devote himself to the prosperity of the Italian textile industry to the regret of those at home.

The labor market during the year has somewhat changed in favor of the operatives. What is known as the "house industry," that is, home work, robbed the silk, knit goods, and straw factories of many of their operatives, notwithstanding that at home they only earn about one-half as much. The demand for labor is illustrated by the fact that within a few days after the destruction by fire of the cotton-mill at Cham the operatives were all provided with new places elsewhere. It may, in short, be stated that any weaver or spinner to-day seeking work can readily find it.

In cotton weaving there were in operation in all Switzerland last year 16,800 looms, as compared with 16,253 in the year 1884. In this increase, however, Zurich did not participate. In 1884 she had 32 cotton-weaving firms, with 7,201 looms; in 1888 only 29 firms, with 7,101 looms.

Woolen goods.—For years past there have existed in the canton of Zurich four establishments for the manufacture of woolen cloth; three of these are equipped for washing, dyeing, spinning, weaving, and finishing the wool, that is to say, they take the raw wool and deliver the finished goods, while the fourth limits itself entirely to weaving and finishing. It is to be noted that in all of these establishments there is a slight but steady annual increase in the number of operatives employed and the amount of goods produced. During the past year, and especially toward its close, the manufacture of military cloth was especially active, a fact which is of interest as showing the spirit and tendency of the times. The need of cloth for the new infantry overcoats, for the drill jackets, for the cloaks of the landsturm troops, and for the leggings which have been again introduced into use, all kept the looms busy, and will for some time continue to do so. Some complaints as to the price of these military woolens are heard, however. Each manufacturer, in putting in his bid, endeavors to put the price at the lowest possible figure, hoping thereby to obtain the largest possible order, and consequently his profits are correspondingly small. Up to the present time the eight competing Swiss manufacturers of these woolens have been unable to agree upon any common tariff of price for delivery of such goods.

In other woolen textiles orders were less active, on account of foreign competition. Nevertheless, the manufacture of domestic all-woolen buckskins for men's clothing increased somewhat, notwithstanding that German and English competition is deluging Switzerland with goods of this character. A similar competition from the German side threatens danger to the Swiss half-woolen buckskin manufacturers. The manufacture of woolen cloth for water-proof cloaks furnished employment for some looms, but this branch would assume far greater proportions were it not that under the present low tariff, unfinished (but nearly made) water-proof cloaks are largely imported, and mostly from Berlin. In every twenty of such cloaks in use here there is scarcely one of Swiss stuff and made up in Switzerland. In this connection, it may be stated that a special school for instruction in making cloaks and dresses has been recently established in Zurich, and hopes are entertained that this may ultimately tend to remedy the evil complained of.

Straw goods.—The straw industry forms an important feature of the neighboring canton of Aargau, in this consular district, and last year, as will be seen by reference to the foregoing table, shipped nearly a quarter of a million dollars' worth of goods to the United States. The year covered by this report was, for the straw manufacturers, generally speaking, a good one. Good fancy braids, as well as the dearer lines of bordures, were for a long time in heavy demand, and the so-called "winter articles" of the trade, which prove of great help in carrying the manufacturer through the dull season, also met with their usual sales, America being the leading purchaser, while European clients, including Paris, held somewhat aloof. This is ascribed to a belief that American straw goods manufacturers have become tired of Chinese braids and at present show a decided preference for working in novelties of Swiss and Italian origin. The result was an unwonted demand for certain classes of straw goods operatives, known as the "hanfknuepfers" (hemp-tiers), and in one region (Entlebuch), where the mild weather at the opening of winter tempted the country people to continue as long as possible their work in the fields, very heavy wages had to be paid to secure the necessary hands to fill orders. The machine-made articles, such as lacets, etc., did not enjoy the favor of the fashions; yet, during the season, considerable work was done in the way of hemp ribbons and other products which could be used over in braid making. The manufacture of ladies' straw hats at Wohlen and its vicinity remained about the same as during the previous year.

Machinery.—The export of machinery fell off somewhat during the past year, but this was compensated for to a great extent by an increased domestic demand. The old story of German competition is making itself felt in this branch of industry, as in others. Since the opening of 1889 great efforts have been made in the direction of France by the Zurich machine manufacturers, who have spared no pains and no expense to render their exhibit at the Paris Exhibition a striking one. That these efforts have been crowned with success the list of awards to Zurich exhibitors of machinery fully shows. In weaving machinery the industry has undergone very little change during the year; orders came in regularly and in sufficient numbers, but, in most cases, prices weakened, while the cost of the raw material rose. It is a noticeable fact that a falling off in orders from South Germany, France, Austria, and Russia (those from the latter country fell to almost nothing) was compensated for by a largely increased demand from Italy, and that, too, in spite of the increased duties which went into effect on the 1st of May. The domestic orders were also very satisfactory in silk-weaving machines, and indicate a constantly increasing preference for machine over hand work. The milling-machine industry was inactive during the year, and shows no prospect of recovery, owing to the generally high duties imposed by foreign countries. The locomotive industry was actively engaged, and up to the end of the year had large orders, principally domestic ones, still unfilled. This is due to the construction of a large number of spur and mountain railway lines throughout Switzerland, as well as the remodeling of many locomotives belonging to the main lines. The result was that many branches of Swiss machine industry, in order to keep up with orders, were obliged to resort to working over the regular hours.

The coal supply.—The importance of the fuel question for Swiss industrial interests may be seen when it is stated that during 1888 the excess of imports over exports amounted to 24,711,054 francs, about three-fourths of which represents imports of hard coal. Most of this comes from the Saar mines of

Westphalia. The excess of imports over exports in 1888 exceeded that of 1887 by nearly 50,000 tons, indicating an increased industrial activity. The distance from which the coal has to be transported naturally enhances its cost as to make it a burden to Swiss consumers. A severe winter in Zurich means not so much increased profit for the coal dealer as it does increased discomfort and self-denial for the middle classes and increased suffering for the poor. It costs from 215 to 231 francs ($41.30 to $44.50) to bring a car-load of coal from the mines in Germany down to the Zurich station. Belgian coal sells here at 370 to 380 francs per car-load, and soft coke, for American self-feeders, at 328.50 francs, which includes 210 francs for the freight hither from Barmen.

Great efforts are made by the Westphalian coal mines to secure Italy's orders for coal, for the delivery of which across Switzerland the St. Gothard Railway offers especial facilities. A car can be loaded with coal at Saarbruck and unloaded at Genoa, Leghorn, or Rome, if necessary. To secure this trade the German mine owners load a car with coal for Italy via Switzerland for 6 marks ($1.25) less than they would charge if the same load were destined for Switzerland itself. But even this bid for patronage does not seem to avail, for Italy continues to draw the bulk of her coal import by sea from the English mines.

Grain and flour.—An unusually long winter and a dry spring, followed by prolonged rains, made last year's grain crop in this country an inferior one both in quantity and quality. Reckoning a full crop at 100, there was produced only 70 per cent. of wheat, 80 per cent. of rye, and something over 90 per cent. of oats. Consequently the import from foreign lands was proportionately greater, amounting in value to the enormous sum of 84,179,911 francs ($16,247,000), of which 66,789,316 francs, or $13,000,000, was for wheat alone. In addition to the above, there was also imported 8,891,460 francs' ($1,750,000) worth of flour. In this section of Switzerland two-thirds of the wheat consumed came from Austria-Hungary and the remainder from Russia and Roumania. During the year not a bushel was imported from either America or India. The fluctuations in prices on the Zurich grain exchange were as follows: Wheat, per 100 kilograms, highest, 22.50 francs; lowest, 20 francs. Oats, per 100 kilograms, highest, 18 francs; lowest, 15 francs. Maize, per 100 kilograms, highest, 18.50 francs; lowest, 16 francs. Middling flour, per 100 kilograms, highest, 35 francs; lowest, 31 francs. White bread, per kilogram, highest, 0.45 franc; lowest, 0.43 franc.

Financial.—During the first half of the year there was a continuance of the complaints of the excess of gold in circulation; these ceased, however, when, later in the year, the failure of the home crops compelled heavy cash payments to foreign countries for grain. Discounts on drafts and checks fluctuated from 2½ to 4½ per cent., and on current accounts from 1½ to 2 for checks, from 2½ to 3 for creditors, and from 4 to 4½ for debtors. The outstanding loans on mortgages by the three Zurich banks engaged in that business amounted, on December 31, 1888, to 128,877,708.60 francs, at an average interest of 4.121 per cent. The taxable capital, according to the revised assessment lists, foots up 915,681,700 francs. The total circulation of the two Zurich banks which issue notes, viz, the Cantonal Bank and the Bank in Zurich, amounted to 25,320,000 francs, with a cash deposit of 16,707,000 francs. In order to maintain a proper metal reserve during the year, considerable quantities had to be brought in from abroad. This need arises each time that exchange with France reaches a certain point and takes the silver 5-franc pieces over the frontier. "It would be better" says a local financial writer, "were our private banks to endeavor to renew their diminishing supply of coin from near by, instead of choosing the expensive method of bringing it from abroad."

Complaint has also been made to the Federal Council at Berne by the Mercantile Association of Zurich that an excessive number of Italian 2-franc, 1-franc, and 50-centime pieces are in circulation. It is stated that the evil had at one time reached a point where payments of wages were made almost entirely in these coins. The wage receivers in turn passed them upon the small store-keepers and retail dealers with whom they had transactions, and the latter, in turn, found themselves unable to pass them further. Hence the complaint. But while it was under official advisement, and after representations had already been made on the subject to the Italian Government, an improvement in values in the latter country caused a withdrawal of the objectionable coin homeward again, and the evil remedied itself without legislation.

Railways.—At the end of the year 1888 the total length of railways in Switzerland was 3,015.7 kilometers (1,873.8 miles). Among the great achievements of Swiss enterprise during the year is the opening of the new mountain railway leading to the summit of Mt. Pilatus overlooking the Lake of Lucerne. The narrow-gauge road from St. Galle to Gais may also be mentioned as a triumph of practical engineering.

The question of the purchase and operation of the Swiss railways by the Federal Government has again been actively agitated during the past year, but, up to the present time, without other result than great encouragement to the advocates of the measure and the hope that their plan will before long be carried into effect.

Postal and telegraphic.—A glance at the Swiss postal statistics for the last year shows that there were 3,076 post-offices and 6,439 officials and employés, and that the amount of business transacted was as follows:

Description.	Domestic.	Foreign.	Total.
Letters	53,170,513	30,128,429	94,830,293
Postal-cards	11,531,351		
Printed matter, etc	17,752,199	13,829,221	31,581,420
Postal orders:			
Number	2,644,089	347,623	2,991,712
Amount in francs	294,137,045	19,389,057	313,526,102

There were but 54 kilometers of telegraph line added during the year, making a total of 7,114 kilometers, or 4,418 miles. There are in all 1,325 telegraph offices, employing 1,826 persons. During 1888, 1,805,473 domestic and 1,105,827 foreign dispatches were handled.

The telephone.—Zurich has now direct telephonic communication with Schaffhausen, St. Galle, Lucerne, and Basle, while the number of subscribers in the city itself is said to be greater in proportion to the population than that of any other city in the world. The cheapness of the rates and the enterprise of the originators, combined with the business activity of the Zurich mercantile world, produce this result. In all Switzerland there were, at the beginning of the present year, 11,812 miles of telephonic connection established.

A scale of prices for telephone service, approved by nearly all the mercantile associations in Switzerland, has been laid before the Federal Congress. Should this, as is quite probable, become a law, the cheapness of the telephone in Switzerland will excite general remark. It is proposed to charge, for instance, for subscribers, first year, 120 francs; for subscribers, subsequent years, 100 francs; for five minutes' use of telephone to other points, viz, 50 kilometers distant, 20 centimes; 100 kilometers distant, 50 centimes; over 100 kilometers distant, 75 centimes. It is safe to presume that if these rates are introduced the telephone will become as familiar an appliance as the piano or sewing-machine in the household world.

The outlook.—The present commercial year opens more hopefully than has any other during the past half-decade. The troublesome treaty questions have been set at rest, hopes of the maintenance of peace have begun to gain ground, and the unusual successes gained by Swiss exhibitors at the Paris Exhibition have already given an unwonted stimulus to domestic manufactures, and will certainly result in a largely increased export during the coming twelve months.

GEORGE L. CATLIN,
Consul.

UNITED STATES CONSULATE,
Zurich, October 23, 1889.

HERRING FISHERY OF SWEDEN.

REPORT BY MINISTER THOMAS, OF STOCKHOLM.

During the past week King Oscar made a trip to the west coast of Sweden, and personally inspected the herring fisheries there. This expedition has called public attention to a comparatively new, or, to speak more exactly, a recently revived, Swedish industry, and has brought to light many interesting facts in relation to it. Availing myself of this information, and arranging and condensing the same, I have the honor to make the following report upon the herring fisheries of the west coast of Sweden.

The province of Bohus extends along the west coast of Sweden from the Norwegian frontier at Fredrickshald, where Charles XII was shot, south as far as, and, in fact, a little beyond, the mouth of the Göta River, where lies the thriving commercial city of Gothenburg. The province thus embraces the entire Swedish coast which faces the Skagerak, that great open-sea highway leading out to the German Ocean and the Atlantic.

The rocky coast of Bohus is indented with numerous bays and fjords and strewn throughout its entire length with thousands of rocky islands, which form the "Skärgard"—literally, "rock-yard." The water is deep close in to the cliffs, and good harbors are everywhere among the isles and along the bays.

This province was the favorite abode of vikings in the middle ages, and in our own day it is the seat of a lively commerce and of the most important fisheries of Sweden. Indeed, the product of the fisheries of this single province of Bohus is, at the present time, of greater value than all the remaining fisheries of the Kingdom put together.

In former times herring were wont to visit the rocky coast of Bohus in great numbers, but their visits were always periodical, or for only a limited number of years at a time.

The records show that at different periods the herring suddenly appeared, frequented the shores for fifteen or twenty years in succession, arriving in the late autumn of every year, and then as suddenly vanished and were seen no more for a much longer period.

A dozen years ago the oldest inhabitant of Bohus could recollect the herring fishery but as a dim reminiscence of his boyhood. For sixty-eight years this fish had not been seen on the Swedish coast, when, in 1878, to the surprise and joy of the inhabitants, the herring made their appearance, not in paltry numbers, but in vast schools as of yore, and they forced their way in almost solid column through the inlets, crowded in among the islands, and swarmed in the fjords.

The fishermen were entirely unprepared for their arrival. Neither boats nor nets adapted to the herring fishery could be obtained. There were no factories for salting the fish, and scarcely any barrels for packing them when salted. Yet, with all these disadvantages, the catch of that year amounted to 244,500 barrels, worth 618,400 crowns.*

Since 1878 the herring have returned to the coast of Bohus in the autumn of every year. Boats suitable for the herring fishery have been built, seines and nets manufactured, and an ample number of houses for salting and smoking the fish have been erected. Scotchmen and Russians have established themselves on the coast, bringing with them, especially the Scotch, improved methods of curing the herring, and special steamers have been built for carrying the fresh or slightly salted herring to Germany.

The herring fisheries of the west coast of Sweden form to-day an important industry, and should be taken into account in any estimate of the catch of food fish entering into the markets of the world.

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* The Swedish crown is equal to 26.8 cents.

The following table shows the amount and value of herring taken on the Swedish west coast for each year from 1878 to 1888, inclusive. It is taken from the Handels Tidning, an enterprising and accurate newspaper published in Gothenburg, to which I am indebted for many of the facts contained in this dispatch:

Years.	Catch.	Value.
	Barrels.	*Crowns.*
1878	244,500	618,400
1879	26,070	108,194
1880	25,805	149,745
1881	56,092	307,738
1882	194,175	832,952
1883	79,739	352,506
1884	208,273	317,822
1885	384,787	658,510
1886	553,662	730,432
1887	808,908	659,051
1888–'89	1,096,981	1,078,653
Total	2,679,937	5,814,003

In the fishing years 1888–'89, there were salted 281,645 barrels, a larger amount than for any previous year. There was also a larger number of herring smoked, especially of kippers for the English market.

In 1885 there were employed in this fishery 305 seines, worth 826,231 crowns; and 422 net boats, worth, with their nets, 199,846 crowns. This year there are 246 seines, which, with their boats, cost 651,127 crowns; 1,163 boats used for set-net fishing, worth 269,527 crowns; and 10,555 other nets, with 956 boats, worth, both together, 541,907 crowns.

There were engaged in these fisheries in 1878, the first year, 1,490 men, while during the last fishing year (1888–'89) the number had increased to 5,466 men.

In 1884 there were 113 salting factories; this year the number will not be less than 250.

These Swedish herring are consumed not only in Sweden, but are exported to Denmark, Germany, England, Holland, Belgium, and Russia.

Transportation is so rapid that fresh Swedish herring are now sold in the markets of Berlin.

How long will this fishing continue? That no man can say. It may cease any year; the last herring period lasted for only eighteen years. The fish appeared on the coast in 1793 and continued to return every year up to and including 1810. Then they vanished, not appearing again, as we have seen, till after a lapse of sixty-eight years. There is, however, this important circumstance to be taken into consideration: in the former epoch the herring were more abundant than at present. This may indicate that the present period will be of shorter duration than the last.

All accounts from the King's tour of inspection, however, agree that the herring are now being taken in large numbers, and that this bounty of the sea is being cast without stint into the fisheries' nets.

There is one fact connected with the herring fisheries of Sweden that may be interesting and instructive to the fishermen of the United States, and that is, that a migratory fish may re-appear in vast schools in his old haunts and along once frequented shores after he has utterly disappeared and been absent for many years. It is well known that the menhaden have vanished from many waters on the coast of New England where once they were so abundant that fleets of small steamers were employed to seine them and transport them to the factories on shore, where they were reduced to oil and fish-chum.

The schools of mackerel swimming along the coast of the United States, from Cape Hatteras to Maine, are decreasing each year with alarming rapidity. The diminution of mackerel in American waters is so great that at least one yankee skipper has fitted out his fishing smack to pursue the mackerel on the coast of Africa.

The parallel to be drawn, therefore, from the fisheries of Sweden is pertinent and encouraging. It shows that the decrease or total disappearance of the menhaden or mackerel on our coast may not indicate that the number of these fish in the sea is materially lessened, or that they have forever forsaken our shores, but that in due time, and in obedience to laws that we, as yet, know nothing of, these migratory fish may re-appear and swim along our coasts in the vast schools of the good old times.

W. W. THOMAS, JR.,
Minister.

UNITED STATES LEGATION,
Stockholm, November 17, 1889.

SPANISH EMIGRATION.

REPORT BY CONSUL TURNER, OF CADIZ.

The continuous emigration of large numbers of people from Spain to South America is a subject of general comment by the Spanish press and people. The criticisms against the Government heard in company, together with the inclosed decree, issued October 2, led me to ask for and secure from the civil governor the inclosed statement. It shows that up to the 4th instant 10,054 emigrants had sailed from this port for South America. It is said that hundreds of the militia have deserted and shipped from Gibraltar and other ports where they are not required to produce a license for their voyage.

South American emigration societies furnish transportation, which is paid for by the labor of the emigrants after they reach their destination. These societies are taking thousands of people from Spain.

R. W. TURNER,
Consul.

UNITED STATES CONSULATE,
Cadiz, October 10, 1889.

THE EMIGRATION TO CUBA.

[Inclosure 1 in Consul Turner's report.—From the Cadiz Diario of October 4, 1889.]

The foreign minister, who has lately addressed himself to discovering a plausible way of directing Spanish emigration to Cuba — there being already too many in Porto Rico — has, it seems, met with success.

"If it is sad," says the royal decree published in to-day's Gazette, "that there are in the peninsula those who are obliged to look for, in other lands, the work which they can not find here, the Government should procure this work for them in other countries where floats the Spanish flag.

"We do not treat of fomenting emigration, but of directing to Spanish provinces those who have decided to absent themselves from the peninsula. Means should also be found to convert such people into small holders of land, which they could by industry soon make their own, thereby becoming more prosperous than those who can only expect the wages of common laborers.

"It is thought wise to complete the royal decree of December 3, 1886, relating to immigration to Cuba by a new disposition which relates solely to emigrant families, in which there is sure to be found a greater attachment for the property granted to them than in separate individuals."

Mr. Becerra says this should not be gone into on a large scale, for it changes the current of Government expenditure into a new system, simply to better the future of a few families who go to other provinces of Her Majesty to try to better their condition. Being convinced that this position is right, he sent to the Queen the following royal decree, which Her Majesty has signed:

ARTICLE 1. The total sum appropriated, according to the 29th article of the law now in force, authorizes the expenditure of $40,000 for the transportation of two hundred and fifty families of the peninsula and adjacent isles, consisting of agricultural colonies, who will establish themselves in the Antilles.

ART. 2. The colonists who, by virtue of this disposition, go to the isle of Cuba will enjoy all the advantages and rights granted to soldiers of Cuba by the second article of the royal decree of October 27, 1877.

Number of emigrants embarking in the port of Cadiz in the year 1889 with assisted passage for South America.

[Inclosure 2 in Consul Turner's report.]

Month.	Number.	Month.	Number.
January, in steamers	981	June, in steamers	136
Do	932	July, in steamers	400
March, in steamers	921	Do	118
Do	363	Do	103
April, in steamers	551	August, in steamers	296
May, in steamers	624	September, in steamers	1,579
Do	454	To October 4, in steamers	1,793
June, in steamers	382	Total to October 4, 1889	10,054
Do	211		
Do	210		

ELECTRO-TECHNICAL EXHIBITION AT FRANKFORT-ON-THE-MAIN.

REPORT BY CONSUL-GENERAL MASON.

I have the honor to report that it has been decided to hold an international electro-technical exhibition in the city of Frankfort during the coming year. It will be opened on the 1st of May, 1891, and continue until the end of October. The exhibition will be under the direction of the Electro-Technical Society, of this city; and a large committee, chosen from among its members, has taken hold of the work of preliminary organization, the provisions of ways and means, etc., with great unanimity and energy.

It is proposed that the exhibition shall be organized and conducted on the same general plan as the electrical exhibitions held at Munich in 1882, at Vienna in 1883, and at Paris during the following year, especial prominence being given to the inventions and improvements which have been made in electro-technical science since that time. The exhibits will be grouped as follows:

(1) Motors for electro-technical purposes, such as steam, water, air, gas engines, and steam generators, etc., and accessory apparatus.

(2) Generators of electricity.

(3) All kinds of apparatus for conducting and distributing the electric current, accessory apparatus, etc.

(4) Accumulators, transformators, etc.

(5) Devices for transmission of electrie energy and its employment for industrial purposes, etc.

(6) Electric lights, and a special section for fittings of all kinds.

(7) Telegraphy, telephony, safeguards against lightning, fire, theft, and other dangers, telegraphic fittings for houses, hotels, etc.

(8) Electrical appliances and apparatus for railways, tram-ways, ships, and nautical science.

(9) Electrolysis, electro-metallurgy.

(10) Electric apparatus for scientific, measuring, optical, acoustical, and school purposes, etc.

(11) Electro-therapeutics, electro-surgery.

(12) Electrical literature, etc.

For the purposes of the exhibition, it is proposed to erect adequate buildings upon the land vacated by the railway companies since the withdrawal and concentration of their lines in the new union depot. This gives an area of 538,000 square feet, centrally located between the railway station and the business part of the city. It is, moreover, contiguous to the union freight depot, from which a track will be laid for the easy transportation of exhibits which arrive and depart by rail.

Concessions for the use of this land have already been secured, and work upon the buildings will be commenced at once. It is important that intending exhibitors should at the earliest possible moment give notice of participation. Such notice should state clearly how much space is desired, whether on the floor or wall, or both, or in a separate pavilion; also how much motive power (horse-power)—steam, gas, air, or electrical energy—will be required for the intended exhibit.

It is confidently expected that the privilege of entry free of duty will be secured for all machinery and appliances coming from foreign countries solely for the purposes of exhibition, and the railway companies promise prompt transmission, at favorable rates, of all freight destined for Frankfort for the same purpose. It is expected that this exhibition will have an especial importance in all that relates to electric lighting. In several cities of this country, among which Frankfort is included, it has been decided to erect plants for the transmission of energy and lighting the streets by electricity. But they are all, as yet, more or less undecided which system to adopt. It is probable that the effect of the forthcoming exposition will be to decide these questions. Whatever system makes the best and most plausible show at Frankfort will be likely to obtain some important commissions in southern Germany, where the hazardous experiment of overhead wires has not been and is not likely to be tried, and where public sentiment is unprejudiced by any previous failure or mishap.

Another important department will be that of electrical motors for street railways, in which many of the German municipalities are now deeply and practically interested. It is earnestly hoped by the management that American inventors may be induced by these circumstances to present as full and representative a display as possible of the inventions and improvements in electrical science which have been made in our country during the past five years.

All communications relating to space, etc., should be addressed to Leopold Sonnemann, esq., editor of the Frankfurter Zeitung.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, January 4, 1890.

Meat trade of Russia.—The consul-general of the United States, at St. Petersburg, reports to the Department under date of November 7, 1889, that salted, smoked, and dried meats, as well as sausages, pay an import duty of 47½ cents per 36 pounds. Russia is an exporter but not an importer of fresh meats. The consul-general is not aware of any regular bonus paid by the Russian Government for killing and packing hogs and cattle, although it has in some cases given assistance to meat exporters.

The transportation rates for cattle are 5 cents per wagon per verst (two-thirds of a mile), each wagon to contain eight head of cattle.

CONSULAR REPORTS
ON
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No. 114.—MARCH, 1890.

WOOL, COTTON, AND IRON TRADE OF ENGLAND.

REPORT BY CONSUL SHERMAN, OF LIVERPOOL.

WOOL.

The wool trade of this country is in an exceedingly satisfactory condition at the present time, having recovered from the effects of the deficient harvests of a few years ago, and the consequent impoverishment of the people of the agricultural sections. The improved harvests of the past two or three years, and especially the satisfactory results of all branches of agricultural industry during the present year (1889) have led to an important revival in the demand for woolen goods, as it has for many other products of home manufacture. To this is added the generally gratifying condition of the export trade in woolen goods, which appears to have been well maintained.

Speaking more in detail of the trade, it may be divided into three branches:

(*a*) Clothing wool, that is, wool of merino and kindred breeds.
(*b*) Combing wool, that is, English wool, mohair, and alpaca breeds.
(*c*) Carpet wool, that is, Scotch Highland, Syria, East India, etc.

Clothing wools.—This wool opened the year 1889 at 5 per cent. under the average price of the previous ten years for the finer grades, such as Australian, which are used for fine cloths, and 10 to 15 per cent. under the average for the coarser grades, such as Peruvian, which are used for cheviot cloths. During the year the former class has fully recovered to the average of the ten years, and now stands rather above it; the coarser wools have not shown any change.

This result, in the face of the immense increase in the growth of merino wools, is to be attributed to the continuance of the fashion for fine cloths for ladies' dresses, which has had a great run for twelve years; and an idea of the magnitude of the consumption for this purpose may be gathered from the fact that the production of merino wool in the three leading countries, Australia, river Plate, and Cape of Good Hope, has increased from 1,234,000 bales in 1878 to 2,008,000 bales in 1888, or, taking the weight in scoured pounds, from 255,000,000 pounds in 1878 to 420,000,000 pounds in 1888.

The fashion referred to is still in full swing, but there are signs that the stiffer goods, which are made from combing wool, will come into favor during next year, in which case there is no doubt that the consumption of merino wools will be unable to deal with the gigantic production which has followed upon the stimulating effect of ten years of fashion, and it is quite possible that during next year a very sharp and serious decline may occur in the value of merino wools named, and no doubt a corresponding decline will take place in wools of the same class grown in the United States.

Combing wools.—With regard to this description, we find that English wool opened at the beginning of this year at 10 per cent. under the average value of the last ten years, and alpaca and mohair 25 to 35 per cent. under the same average; but in considering these figures it is necessary to remember that all these wools have been under a cloud since 1878, when the stiff Bradford stuffs previously worn for a generation by women were displaced by the fine merino cloths referred to above, and the effect of this change will be more clearly seen when the averages of the previous decade are compared with those of the decade just closed, for instance—

Description.	Average, per pound.	
	1869–'78.	1878–'87.
	Pence.	*Pence.*
Lincoln hog fleeces	21.77	12.02
Alpaca	28.47	15.17
Mohair	38.55	19.55

As already stated, there are unmistakable signs that stiff goods are coming into general use, and during the past three months a very notable advance has taken place in values; for instance, Lincoln hogs have advanced from 10½ to 13½ pence per pound; alpaca, from 15 to 24 pence; and mohair, from 13½ to 20 pence.

These advances, large as they appear, do not, however, bring the values of these wools up to the figures which were current when the cloths made from them were in favor; for example, 20 to 24 pence per pound was a common price for Lincoln wool; alpaca averaged 30 pence per pound for thirty years, and touched 40 pence; and mohair, when at the height of its favor, reached 49 pence per pound. Should the change in fashion become general during next year, it is not at all improbable that high prices, such as these, may come round again, and especially so as regards English wool, for the low prices of the last few years have had the effect of decreasing the number of flocks in this country to a serious extent; indeed, twenty years ago there were thirty-five millions of sheep, whereas now there are only twenty-nine millions, and, of course, during that period the capacity in this country for consuming any class of wool that may be wanted for goods in fashion has enormously increased.

As regards the American production, some of the States produce combing wools similar to English, but the bulk of the wool grown there is more or less of a merino character, and the quantity of bright-haired wool which would be suitable for making the luster fabrics above named forms a very much smaller proportion of the growth there than it does in England. As for mohair, the quantity grown in the United States is infinitesimal compared with the total production; and with respect to alpaca, it is needless to mention that none whatever is grown there.

Carpet wools.—The values of this description at the beginning of this year were generally 10 to 15 per cent. under the average of the past ten years, and if the comparison is made with the previous decade the decline was 25 to 30 per cent. There has been no large increase in the production of any kind of carpet wools during the past ten years. New countries of production, such as central Asia, have been tapped, but not sufficiently to materially alter the supplies of this class of wool.

In the United States also attempts have been made to grow carpet wools, but the climate appears to be against this class of sheep, for, although they grow wool of this character in Colorado, it gradually assumes a low-class clothing description; and of wool suitable for combing into yarn for carpets there is very little grown, and the United States has to depend for its supply mainly upon Scotland, Russia, Chili, Syria, Persia, and, to some extent, the East Indies. During the disfavor of English wool for dress goods very large quantities of the coarser kinds of wool grown in this country have been available for the English carpet and blanket manufacturers, and the markets I have named have been, to a considerable extent, left at the disposal of the American manufacturers. A change, however, is now coming about and is already felt, for, as the Bradford trade resumes its consumption of English wool for the higher purposes, the carpet and blanket makers will have to give more attention to foreign-grown combing and also filling wools, which are the shorter kinds of wool used for this purpose, and which mainly come from the Indies; but so far the effect of this change has only caused prices to advance to the extent of 5 per cent. from the bottom, and at the present moment they stand rather under the prices which ruled at the beginning of the year. It is therefore certain that if this change in fashion should assume large proportions, as it is likely to do, there is no doubt that American manufacturers of carpets will have to meet the competition of English consumers in foreign wool markets, which, for a number of years, they have had almost entirely to themselves. In connection with this subject the subjoined official tables will be interesting.

The figures below show the receipts into this country of all kinds of wool, and also of rags intended to be torn up and used again, but they do not include the immense quantities of cow and other hair, or of the home collected rags, which are used, of which no correct estimate can be formed. They give also the estimated growth of wool in the United Kingdom, as well as the total quantity retained for use and exported.

The supply and consumption of wool, etc., in the United Kingdom.

Year.	Receipts.				Estimated weight of wool grown in the United Kingdom.	Estimated weight of wool taken from foreign skins in the United Kingdom.
	All kinds of sheep wool.	All kinds of alpaca.	All kinds of mohair.	All kinds of woolen rags.		
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
1855	97,750,000	1,500,000	2,750,000	5,250,000	140,000,000	2,750,000
1862	168,750,000	2,750,000	3,250,000	29,250,000	140,000,000	5,000,000
1869	255,250,000	3,250,000	4,250,000	37,500,000	156,000,000	10,000,000
1876	386,500,000	3,500,000	5,750,000	64,500,000	156,000,000	20,000,000
1883	494,000,000	1,500,000	13,250,000	80,750,000	128,250,000	14,250,000
1884	519,500,000	7,750,000	16,750,000	69,250,000	132,500,000	16,500,000
1885	501,250,000	4,500,000	14,000,000	73,000,000	136,250,000	16,750,000
1886	591,750,000	4,000,000	19,250,000	68,000,000	136,500,000	19,750,000
1887	574,250,000	4,750,000	18,000,000	71,000,000	133,750,000	18,750,000
1888	636,000,000	4,500,000	21,500,000	70,750,000	133,500,000	22,500,000

Year.	Total supply.	Exported.	Retained in England.	Percentage retained.	Percentage exported.
	Pounds.	*Pounds.*	*Pounds.*	*Per cent.*	*Per cent.*
1855	250,000,000	45,500,000	204,500,000	81¾	18¼
1862	349,000,000	58,250,000	290,750,000	83	17
1869	466,250,000	129,000,000	337,250,000	72¼	27¾
1876	636,250,000	182,750,000	453,500,000	71¼	28¾
1883	732,000,000	296,500,000	435,500,000	59½	40½
1884	762,250,000	295,000,000	467,250,000	61¼	38¾
1885	745,750,000	291,000,000	454,750,000	61	39
1886	839,250,000	334,500,000	505,000,000	60¼	39¾
1887	820,500,000	338,750,000	481,750,000	58¾	41¼
1888	888,750,000	362,500,000	526,250,000	59¼	40¾

CLOTHING WOOL.

The production of wool in Australasia, Cape of Good Hope, and the river Plate, as shown by the receipts into Europe, the United States, Canada, etc., in the years 1880–'88, and in 1860, which indicate the growth of the years preceding those named.

[The figures of Australian given below for 1860 refer exclusively to merino wool; since then, however, English blood has been introduced, and the proportion of cross-bred wool, which in 1875 reached about 10 per cent., has now attained 18 per cent. In a lesser degree, these remarks apply also to river Plate wool.]

Year.	Australian.	Cape.	River Plate.	Total.
	Bales.	*Bales.*	*Bales.*	*Bales.*
1888	1,340,910	298,276	369,492	2,008,678
1887	1,200,478	243,097	328,092	1,771,667
1886	1,208,332	239,211	378,735	1,826,278
1885	1,099,001	190,304	403,428	1,692,733
1884	1,151,299	192,200	367,107	1,710,606
1883	1,022,297	197,683	343,597	1,563,577
1882	1,027,020	204,265	334,867	1,566,152
1881	949,642	217,494	298,057	1,465,193
1880	889,487	230,069	275,443	1,394,999
1860	187,039	90,127	50,636	327,802

The production of wool in Australasia, Cape of Good Hope, and the river Plate, as shown by the receipts into Europe, the United States, Canada, etc.—Continued.

IN THE CONDITION IN WHICH IT IS CLIPPED.

Year.	Australasia.	Cape.	River Plate.	Total.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*
1888	454,250,000	75,750,000	295,500,000	825,500,000
1887	406,750,000	61,750,000	262,500,000	731,000,000
1886	408,750,000	61,250,000	303,000,000	773,000,000
1885	372,000,000	48,500,000	322,750,000	743,250,000
1884	389,500,000	48,500,000	293,750,000	731,750,000
1883	344,750,000	50,500,000	274,750,000	670,000,000
1882	346,250,000	52,500,000	268,000,000	666,750,000
1881	319,750,000	57,000,000	238,500,000	615,250,000
1880	299,750,000	61,750,000	220,250,000	581,750,000
1860	60,250,000	26,250,000	40,500,000	127,000,000

WITH ALLOWANCE FOR SHRINKAGE.

1888	261,250,000	54,750,000	103,500,000	419,500,000
1887	233,750,000	44,750,000	91,750,000	370,250,000
1886	235,000,000	44,000,000	106,000,000	385,000,000
1885	208,250,000	35,000,000	113,000,000	356,250,000
1884	218,000,000	35,250,000	102,750,000	356,000,000
1883	193,000,000	36,250,000	96,250,000	325,500,000
1882	193,750,000	37,500,000	93,750,000	325,000,000
1881	179,000,000	40,000,000	83,500,000	302,500,000
1880	168,000,000	42,750,000	77,250,000	288,000,000
1860	35,000,000	14,750,000	15,500,000	65,250,000

THE DISTRIBUTION OF CLOTHING WOOL.

The following table shows the receipts of Australasian and Cape wool into England and its distribution in the condition in which the wool is imported:

Year.	Received into England.	Exported to France, Belgium, Germany, and Holland.	Retained in England.	Consumed in England.	Consumed in France, Belgium, Germany, and Holland.
	Pounds.	*Pounds.*	*Pounds.*	*Per cent.*	*Per cent.*
1855	60,250,000	26,250,000	34,000,000	56½	43½
1862	90,250,000	33,000,000	57,250,000	63½	36½
1869	192,750,000	101,750,000	91,000,000	47¼	52¾
1876	306,000,000	150,500,000	155,500,000	50¾	49¼
1883	400,500,000	233,750,000	166,750,000	41¾	58¼
188[illegible]	433,750,000	244,500,000	189,250,000	43¾	56¼
1885	403,250,000	213,750,000	189,500,000	47	53
1886	462,250,000	243,500,000	218,750,000	47¼	52¾
1887	450,250,000	257,500,000	192,750,000	42¾	57¼
1888	513,500,000	274,000,000	239,500,000	46¾	53¼

A fuller and more accurate comparison of the consumption of clothing wool in England and on the Continent is made in the following figures, for they include river Plate wool, which goes chiefly to the Continent, and is consumed there. In another respect, also, these figures give a more correct idea, because the quantities are reduced to a state of absolute purity:

Year.	Received into Europe.	Consumed.		Percentage consumed.	
		In England.	On the Continent.	In England.	On the Continent.
	Pounds.	*Pounds.*	*Pounds.*	*Per cent.*	*Per cent.*
1855	48,750,000	19,750,000	29,000,000	40½	59½
1862	75,250,000	33,250,000	42,000,000	44	56
1869	190,000,000	52,750,000	137,250,000	27¾	72¼
1876	248,000,000	87,000,000	161,000,000	35	65
1883	320,750,000	93,250,000	227,500,000	29	71
1884	349,500,000	106,000,000	243,500,000	30¼	69¾
1885	353,250,000	106,000,000	247,250,000	30	70
1886	377,750,000	125,750,000	252,000,000	33¼	66¾
1887	365,250,000	110,750,000	254,500,000	30¼	69¾
1888	413,000,000	137,750,000	275,250,000	33¼	66¾

Board of trade returns for the entire years named.

Description.	1885.	1886.	1887.	1888.
Total value of all imports	£370,404,314	£349,381,086	£361,935,006	£386,582,026
Total value of exports (British and Irish produce)	213,044,500	212,432,754	221,414,186	233,733,937
Total value of exports (foreign and colonial produce)	58,359,194	56,234,263	59,348,975	64,613,447
Grand total	641,808,008	618,048,103	642,698,167	684,929,410
Exports.				
Wool:				
British ... pounds	23,459,500	22,225,200	19,557,700	23,583,600
Foreign and colonial ... do	267,668,037	311,953,017	319,097,610	338,927,660
Woolen and worsted yarn ... do	55,684,900	60,082,500	52,348,800	53,948,400
Woolen cloths ... yards	87,491,768	90,433,588	96,626,273	88,778,557
Worsted stuffs ... do	163,270,189	164,229,177	164,740,099	153,006,064
Blankets ... pairs	1,217,080	1,327,533	1,579,103	1,433,870
Flannels ... yards	11,096,300	11,474,600	10,961,100	16,961,200
Carpets ... do	11,082,500	11,646,600	12,946,700	11,925,700
Value of woolen yarn and manufactures exported.	£25,001,592	£26,054,774	£26,117,205	£25,652,467
Imports.				
Wool:				
Sheep's ... pounds	501,182,161	591,872,167	574,196,058	635,936,244
Alpaca ... do	4,575,991	3,926,665	4,706,735	4,389,738
Goats' ... do	14,109,013	19,184,312	18,047,274	21,580,760
Woolen rags ... do	72,945,600	68,109,440	70,920,640	70,766,080
Woolen yarns ... value	£1,774,418	£2,228,715	£1,904,497	£1,862,870
Woolen manufactures ... do	£7,458,392	£8,159,193	£7,786,198	£8,915,961

COTTON AND COTTON MANUFACTURES.

In the cotton trade there has been great activity during the past season, and the results generally are very satisfactory. Spinners made an average profit of 10 per cent. during the year ended June 30, 1889, the largest profit for five years. Nevertheless, Great Britain is each year getting a smaller proportion of the world's cotton, and now consumes less than is used on the

Continent, as witness the following figures showing the actual consumption of cotton, in bales of 400 pounds, in the seasons 1860–'61 to 1888–'89, inclusive:

Countries.	1888–'89.	1886–'87.	1876–'77.	1870–'71.	1860–'61.
Great Britain	3,770,000	3,691,000	3,182,000	3,013,000	2,614,000
Continent	4,069,000	3,640,000	2,450,000	1,962,000	1,723,000
United States	2,692,000	2,448,000	1,571,000	1,116,000	1,009,000
East Indies	871,000	710,000	231,000	87,000	65,000
Total	11,402,000	10,489,000	7,434,000	6,178,000	5,411,000

Still Liverpool holds its sway as the great cotton mart of the world, and the daily transactions on the "Flags" (the cotton exchange) are of almost fabulous magnitude.

The following estimate of the number of spindles in Europe, the United States, and India is furnished by one of the principal cotton firms in Liverpool, as are the other tables in this paragraph:

Countries.	1889.	1888.	1887.	1886.	1885.
Great Britain	43,500,000	43,000,000	42,740,000	42,700,000	43,000,000
Continent	24,000,000	23,500,000	23,180,000	22,900,000	22,750,000
United States	14,175,000	13,525,000	13,500,000	13,350,000	13,250,000
East Indies	2,760,000	2,490,000	2,420,000	2,260,000	2,145,000
Total	84,435,000	82,515,000	81,840,000	81,210,000	81,145,000

In all the great cotton-consuming centers the signs point to increased consumption and great activity during the new season now opening, and the prospect of a fine business year encourages everybody concerned. It will be seen by the tables that Great Britain consumed in the season of 1888–'89 3,770,000 bales of 400 pounds, against 3,842,000 in 1887–88, a decrease of 1.9 per cent. But it is calculated that 207,000 bales were saved by short time during the past year, and that a total of 3,977,000 bales would have been used had the mills worked full time. Hence the estimate that 3,977,000 bales would be needed this season.

The requirements and distribution for the season are estimated as follows, comparison being made with two preceding seasons: Assuming that Great Britain will get 240,000 Brazilian, against 230,000 last season; 400,000 Egyptian, against 384,000; 40,000 Smyrna, etc., against 41,000; 90,000 Peruvian, against 86,000; and 1,640,000 East Indian, against 1,638,000, there will be wanted an American crop of 7,386,000, against 6,935,000, or against 7,098,000 actually consumed.

These estimated figures compare as follows with the actual supply last season and the actual consumption last season and the season before:

Description.	Actual supply, 1888–'89.	Estimated requirements, 1889–'90.	Actual consumption, 1888–'89.	Actual consumption, 1887–'88.
American	6,935,000	7,386,000	7,098,000	6,983,000
Brazilian	230,000	240,000	242,000	458,000
Egyptian	384,000	400,000	389,000	419,000
Smyrna, etc	41,000	40,000	42,000	21,000
West Indies, Peru, etc	86,000	90,000	95,000	82,000
East Indian	1,638,000	1,640,000	1,536,000	1,398,000
Total	9,314,000	9,796,000	9,402,000	9,361,000
Average weight	452	453	453	439.2
Bales of 400 pounds	10,524,000	11,088,000	10,648,000	10,279,000
Consumption per week	....	213,200	204,800	197,700

The respective shares of Great Britain, continental Europe, and the United States, etc., compare as follows, in bales of 400 pounds:

Countries.	Totals.			Per week.		
	1889–'90.	1888–'89.	1887–'88.	1889–'90.	1888–'89.	1887–'88.
Great Britain	3,977,000	3,770,000	3,842,000	76,500	72,500	73,900
Continent	4,205,000	4,069,000	3,796,000	80,800	78,300	73,000
United States, Canada, etc	2,906,000	2,809,000	2,641,000	55,900	54,000	50,800
Total	11,088,000	10,648,000	10,279,000	213,200	204,800	197,700

The deliveries, estimated consumption, and surplus stocks at the mills for ten years compare as follows, in bales of the uniform weight of 400 pounds each:

Consumption of the Continent.

Year.	Deliveries.	Stock, October 1.	Supply.	Stock, September 30.	Consumption.	
					Total.	Per week.
1879–'80	2,768,000	94,000	2,862,000	112,000	2,750,000	52,381
1880–'81	3,084,000	112,000	3,196,000	240,000	2,956,000	56,846
1881–'82	3,092,000	240,000	3,332,000	134,000	3,198,000	61,500
1882–'83	3,647,000	134,000	3,781,000	401,000	3,380,000	65,000
1883–'84	3,131,000	401,000	3,532,000	152,000	3,380,000	65,000
1884–'85	3,210,000	152,000	3,362,000	107,000	3,255,000	62,000
1885–'86	3,524,000	107,000	3,631,000	166,000	3,465,000	66,000
1886–'87	3,641,000	166,000	3,807,000	167,000	3,640,000	70,000
1887–'88	3,796,000	167,000	3,963,000	167,000	3,796,000	73,000
1888–'89	4,083,000	167,000	4,250,000	181,000	4,069,000	78,250

The increase over last season is 7.1 per cent. The figures for 1884–'85 and 1885–'86 are for fifty-two and a half weeks.

Visible cotton supply, end of September.

Description.	1889.	1888.	1887.
American.			
Stock:			
Liverpool	217,000	173,000	243,000
Continent	40,000	55,000	89,000
United States ports	250,000	251,000	373,000
United States interior	30,000	48,000	103,000
Afloat:			
Great Britain	99,000	74,000	128,000
Continent	63,000	36,000	57,000
Total	699,000	637,000	993,000
East Indian.			
Stock:			
Liverpool	146,000	71,000	167,000
London	27,000	13,000	39,000
Continent	67,000	68,000	162,000
Bombay harbor	3,000	1,000	3,000
Afloat:			
Liverpool	11,000	6,000	12,000
London	9,000	11,000	18,000
Continent	4,000	24,000	37,000
Total	267,000	194,000	438,000
Sundries.			
Stock:			
Liverpool	21,000	56,000	98,000
London	1,000	1,000	1,000
Continent	8,000	11,000	13,000
Afloat:			
Great Britain	11,000	9,000	15,000
Continent	………	1,000	9,000
Total	41,000	78,000	136,000
Grand total	1,007,000	909,000	1,567,000

COTTON DELIVERIES FOR FIVE SEASONS.

The following is a comparative statement of the deliveries during the past five seasons:

GREAT BRITAIN.

Season.	America.	East India.	Brazil.	Egypt.	Sundries.	Total.	Average weight.	Total weight.
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Pounds.*	*Pounds.*
1888-'89	2,605,000	255,000	153,000	235,000	40,000	3,288,000	459	1,509,297,000
1887-'88	2,690,000	201,000	350,000	248,000	35,000	3,524,000	436	1,536,725,000
1886-'87	2,530,000	244,000	332,000	241,000	39,000	3,386,000	436	1,476,182,000
1885-'86	2,552,000	178,000	178,000	250,000	45,000	3,203,000	456	1,438,151,000
1884-'85	2,295,000	286,000	178,000	285,000	41,000	3,085,000	445	1,373,189,000

CONTINENT.

1888-'89	2,077,000	1,294,000	89,000	163,000	97,000	3,720,000	439	1,633,321,000
1887-'88	1,971,000	1,197,000	108,000	171,000	68,000	3,515,000	432	1,518,519,000
1886-'87	1,850,000	1,187,000	94,000	165,000	91,000	3,387,000	430	1,456,586,000
1885-'86	1,888,000	1,048,000	22,000	172,000	91,000	3,221,000	439	1,409,813,000
1884-'85	1,599,000	1,019,000	40,000	200,000	103,000	2,961,000	433	1,282,035,000

ALL EUROPE.

Season.	America.	East India.	Brazil.	Egypt.	Sundries.	Total.	Average weight.	Total weight.
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Pounds.*	*Pounds.*
1888–'89.....	4,682,000	1,549,000	242,000	389,000	137,000	7,008,000	448.4	3,142,618,000
1887–'88.....	4,661,000	1,398,000	458,000	419,000	103,000	7,039,000	434	3,055,206,000
1886–'87.....	4,380,000	1,431,000	426,000	406,000	130,000	6,773,000	432.8	2,932,768,000
1885–'86.....	4,440,000	1,226,000	200,000	422,000	126,000	6,414,000	444	2,847,964,000
1884–'85.....	3,894,000	1,305,000	218,000	485,000	144,000	6,046,000	439.8	2,655,224,000

The average weights of bales for the season were: America, 465 pounds; Brazil, 174 pounds; Egypt, 693 pounds; Smyrna, 350 pounds; West Indies, etc., 165 pounds; and East Indies, 398 pounds.

The average weekly delivery was as follows:

From—	1888–'89.	1887–'88.	1886–'87.	1885–'86.	1884–'85.
Great Britain.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
America	50,093	51,727	48,673	49,072	44,146
East Indies	4,918	3,861	4,685	3,423	5,502
Others	8,224	12,192	11,752	9,101	9,694
Total	63,235	67,780	65,110	61,596	59,342
Continent.					
America	39,947	37,904	35,567	36,035	30,748
East Indies	24,882	23,033	22,836	20,154	19,600
Others	6,720	6,660	6,739	5,589	6,591
Total	71,749	67,597	65,142	61,778	56,939
Grand Total	134,784	135,377	130,252	123,354	116,211

COTTON CONSUMPTION OF GREAT BRITAIN.

The following is a comparative statement of the actual deliveries, estimated consumption, and surplus stocks at the mills for the past ten seasons, in bales of the uniform weight of 400 pounds each:

Season.	Deliveries.	Stock, Oct. 1.	Supply.	Stock, Sept. 30.	Consumption.	
					Total.	Per week.
1879–'80........	3,350,000	27,000	3,377,000	27,000	3,350,000	63,810
1880–'81........	3,570,000	27,000	3,597,000	25,000	3,572,000	68,690
1881–'82........	3,697,000	25,000	3,722,000	82,000	3,640,000	70,000
1882–'83........	3,786,000	82,000	3,868,000	124,000	3,744,000	72,000
1883–'84........	3,631,000	124,000	3,755,000	89,000	3,666,000	70,500
1884–'85........	3,432,000	89,000	3,521,000	88,000	3,433,000	65,300
1885–'86........	3,595,000	88,000	3,683,000	55,000	3,628,000	68,000
1886–'87........	3,690,000	55,000	3,745,000	51,000	3,694,000	71,006
1887–'88........	3,842,000	51,000	3,893,000	52,000	3,841,000	73,860
1888–'89........	3,773,000	52,000	3,825,000	55,000	3,770,000	72,500

The consumption for the past season shows a decrease of 1.9 per cent. as compared with that of the previous season. The figures for 1884–'85 and 1885–'86 are for fifty-two and a half weeks.

Cotton supply and consumption in Great Britain, continental Europe, and the United States during the seasons 1842–'43 to 1888–'89.

Season, October 1 to September 30—	Stock beginning of season.		Supply.			Total supply and stock.
	United States.	Europe.	United States crop.	Import of other sorts into Europe.	Total.	
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
1842–'43	32,000	962,000	2,394,000	500,000	2,894,000	3,888,000
1843–'44	94,000	1,280,000	2,108,000	500,000	2,608,000	3,982,000
1844–'45	160,000	1,325,000	2,484,000	470,000	2,954,000	4,439,000
1845–'46	94,000	1,349,000	2,170,000	337,000	2,547,000	3,990,000
1846–'47	107,000	923,000	1,860,000	381,000	2,241,000	3,271,000
1847–'48	215,000	639,000	2,424,000	419,000	2,843,000	3,697,000
1848–'49	171,000	820,000	2,808,000	472,000	3,280,000	4,271,000
1849–'50	155,000	995,000	2,172,000	693,000	2,865,000	4,015,000
1850–'51	168,000	729,000	2,415,000	660,000	3,075,000	3,972,000
1851–'52	128,000	752,000	3,090,000	607,000	3,697,000	4,577,000
1852–'53	91,000	769,000	3,353,000	915,000	4,268,000	5,128,000
1853–'54	135,000	1,144,000	3,035,000	634,000	2,669,000	4,948,000
1854–'55	135,000	1,112,000	2,932,000	665,000	3,597,000	4,844,000
1855–'56	143,000	690,000	3,645,000	746,000	4,391,000	5,224,000
1856–'57	64,000	796,000	3,056,000	1,112,000	4,168,000	5,028,000
1857–'58	49,000	527,000	3,239,000	798,000	4,037,000	4,613,000
1858–'59	103,000	643,000	3,994,000	791,000	4,785,000	5,531,000
1859–'60	149,000	751,000	4,824,000	992,000	5,816,000	6,716,000
1860–'61	228,000	1,244,000	3,826,000	1,058,000	4,884,000	6,356,000
1861–'62	(*)	1,019,000	†44,000	1,364,000	1,408,000	2,427,000
1862–'63	(*)	368,000	†121,000	1,947,000	2,068,000	2,436,000
1863–'64	(*)	250,000	†215,000	2,716,000	2,931,000	3,181,000
1864–'65	(*)	563,000	†250,000	2,602,000	2,852,000	3,415,000
1865–'66	248,000	347,000	2,314,000	3,156,000	5,470,000	6,065,000
1866–'67	282,000	1,143,000	2,204,000	2,601,000	4,805,000	6,230,000
1867–'68	80,000	1,092,000	2,499,000	2,554,000	5,053,000	6,225,000
1868–'69	38,000	614,000	2,439,000	3,110,000	5,549,000	6,201,000
1869–'70	12,000	583,000	3,155,000	2,479,000	5,634,000	6,229,000
1870–'71	60,000	759,000	4,352,000	2,383,000	6,735,000	7,554,000
1871–'72	105,000	760,000	2,974,000	3,680,000	6,654,000	7,519,000
1872–'73	55,000	1,486,000	3,930,000	2,488,009	6,418,000	7,959,000
1873–'74	91,000	1,220,000	4,170,000	2,762,000	6,932,000	8,243,000
1874–'75	108,000	1,274,000	3,833,000	2,717,000	6,550,000	7,932,000
1875–'76	66,000	1,226,000	4,669,000	2,306,000	6,975,000	8,267,000
1876–'77	120,000	1,168,000	4,485,000	2,219,000	6,704,000	7,992,000
1877–'78	120,000	1,001,000	4,812,000	1,529,000	6,341,000	7,462,000
1878–'79	43,000	656,000	5,073,000	1,464,000	6,537,000	7,236,000
1879–'80	59,000	480,000	5,757,000	1,928,000	7,685,000	8,224,000
1880–'81	137,000	677,000	6,589,000	1,865,000	8,454,000	9,268,000
81–'82	212,000	978,000	5,435,000	2,608,000	8,043,000	9,233,000
82–'83	124,000	771,000	6,992,000	2,417,000	9,409,000	10,304,000
883–'84	237,000	936,000	5,714,000	2,553,000	8,267,000	9,440,000
884–'85	112,000	1,008,000	5,669,000	1,925,000	7,594,000	8,714,000
885–'86	132,000	746,000	6,550,000	1,999,000	8,549,000	9,427,000
886–'87	178,000	615,000	6,513,000	2,566,000	9,079,000	9,872,000
887–'88	84,000	812,000	7,017,000	2,117,000	9,134,000	10,030,000
888–'89	182,000	446,000	6,935,000	2,379,000	9,314,000	9,942,000

* No data, owing to the war. † Imported from United States.

Cotton supply and consumption in Great Britain, continental Europe, and the United States during the seasons 1842–'43 to 1888–'89—Continued.

Season, October 1 to September 30—	Deliveries for consumption.							
	Total.				Weekly average.			
	United States.	Great Britain.	Continent.	Total.	United States.	Great Britain.	Continent.	Total.
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
1842–'43	326,000	1,372,000	816,000	2,514,000	6,269	26,385	15,692	48,346
1843–'44	417,000	1,364,000	716,000	2,497,000	8,019	26,231	13,769	48,019
1844–'45	471,000	1,622,000	903,000	2,996,000	9,058	31,192	17,365	57,615
1845–'46	491,000	1,561,000	908,000	2,960,000	9,443	30,019	17,461	56,923
1846–'47	512,000	1,200,000	705,000	2,417,000	9,846	23,077	13,558	46,481
1847–'48	609,000	1,315,000	782,000	2,706,000	11,711	25,288	15,039	52,038
1848–'49	598,000	1,537,000	986,000	3,121,000	11,500	29,558	18,961	60,019
1849–'50	570,000	1,538,000	1,010,000	3,118,000	10,961	29,577	19,423	59,961
1850–'51	467,000	1,667,000	958,000	3,092,000	8,982	32,057	18,423	59,462
1851–'52	684,000	1,877,000	1,156,000	3,717,000	13,154	36,096	22,231	71,481
1852–'53	782,000	1,878,000	1,189,000	3,849,000	15,038	36,115	22,866	74,019
1853–'54	716,000	1,874,000	1,111,000	3,701,000	13,769	36,039	21,365	71,173
1854–'55	681,000	2,130,000	1,200,000	4,011,000	13,096	40,961	23,077	77,134
1855–'56	770,000	2,170,000	1,424,000	4,364,000	14,808	41,731	27,384	83,923
1856–'57	819,000	2,247,000	1,386,000	4,452,000	15,750	43,211	26,654	85,615
1857–'58	595,000	1,981,000	1,291,000	3,867,000	11,442	38,096	24,827	74,365
1858–'59	927,000	2,179,000	1,525,000	4,631,000	17,827	41,903	29,327	89,057
1859–'60	972,000	2,560,000	1,712,000	5,244,000	18,692	49,232	32,922	100,846
1860–'61	843,000	2,635,000	1,776,000	5,254,000	16,212	50,673	34,153	101,038
1861–'62	*66,000	1,217,000	776,000	2,059,000	(†)	23,404	14,923	38,327
1862–'63	*40,000	1,332,000	814,000	2,186,000	(†)	25,615	15,654	41,269
1863–'64	*20,000	1,565,000	1,033,000	2,618,000	(†)	30,096	19,865	49,961
1864–'65	*13,000	1,873,000	1,182,000	3,068,000	(†)	36,019	22,731	58,750
1865–'66	733,000	2,319,000	1,588,000	4,640,000	14,096	44,596	30,538	89,230
1866–'67	853,000	2,414,000	1,791,000	5,058,000	16,404	46,423	34,442	97,269
1867–'68	884,000	2,822,000	1,867,000	5,573,000	17,000	54,269	35,904	106,173
1868–'69	1,017,000	2,587,000	2,002,000	5,606,000	19,557	49,750	38,500	107,807
1869–'70	928,000	2,760,000	1,722,000	5,410,000	17,846	53,077	33,115	104,038
1870–'71	1,140,000	3,222,000	2,327,000	6,689,000	21,923	61,961	44,750	128,634
1871–'72	1,067,000	3,132,000	1,779,000	5,978,000	20,519	60,230	34,212	114,961
1872–'73	1,214,000	3,335,000	2,099,000	6,648,000	23,346	64,135	40,365	127,846
1873–'74	1,315,000	3,149,000	2,397,000	6,861,000	25,289	60,557	46,096	131,942
1874–'75	1,194,000	3,077,000	2,369,000	6,640,000	22,961	59,173	45,558	127,692
1875–'76	1,357,000	3,017,000	2,605,000	6,979,000	26,096	58,019	50,096	134,211
1876–'77	1,439,000	3,149,000	2,283,000	6,871,000	27,673	60,359	43,904	131,936
1877–'78	1,571,000	2,788,000	2,404,000	6,763,000	30,211	53,607	46,236	130,054
1878–'79	1,633,000	2,602,000	2,462,000	6,697,000	31,404	50,026	47,352	128,782
1879–'80	1,774,000	3,018,000	2,618,000	7,410,000	34,123	58,038	50,344	142,505
1880–'81	1,993,000	3,202,000	2,883,000	8,078,000	38,327	61,576	55,434	155,337
1881–'82	1,989,000	3,439,000	2,910,000	8,338,000	38,250	66,144	55,960	160,354
1882–'83	2,258,000	3,426,000	3,447,000	9,131,000	43,423	65,894	66,289	175,607
1883–'84	1,957,000	3,388,000	2,975,000	8,320,000	37,635	65,148	57,220	160,003
1884–'85	1,794,000	3,085,000	2,961,000	7,810,000	34,508	59,342	56,939	150,789
1885–'86	2,220,000	3,203,000	3,211,000	8,634,000	42,692	61,596	61,758	166,046
1886–'87	2,203,000	3,386,000	3,387,000	8,976,000	42,346	65,110	65,142	172,598
1887–'88	2,363,000	3,524,000	3,515,000	9,402,000	45,442	67,780	67,597	180,819
1888–'89	2,348,000	3,288,000	3,720,000	9,356,000	45,158	63,235	71,549	179,942

* Export to United States.

† No data, owing to the war.

Cotton supply and consumption in Great Britain, continental Europe, and the United States during the seasons 1842–'43 to 1888–'89 —Continued.

Season, October 1 to September 30—	Stock end of season.			Middling Orleans—price.		
	United States.	Europe.		Average.	Lowest.	Highest.
		Total.	Number of weeks consumed.			
	Bales.	*Bales.*		*Pence.*	*Pence.*	*Pence.*
1842–'43	94,000	1,280,000	34	4.43	4	5.12
1843–'44	160,000	1,325,000	33.1	5.06	4.50	5.87
1844–'45	94,000	1,349,000	27.7	4.21	4	4.37
1845–'46	107,000	923,000	19.4	4.39	4.12	5.25
1846–'47	215,000	639,000	17.4	6.45	5.75	7.25
1847–'48	171,000	820,000	20.3	4.28	3.62	5.75
1848–'49	155,000	995,000	20.5	4.38	3.50	5.50
1849–'50	168,000	729,000	14.8	6.78	6.12	7.62
1850–'51	128,000	752,000	14.8	6.43	4.62	7.75
1851–'52	91,000	769,000	13.1	5.14	4.62	5.87
1852–'53	135,000	1,144,000	19.4	5.87	5.43	6.25
1853–'54	135,000	1,112,000	19.3	5.60	5.06	6
1854–'55	143,000	690,000	10.9	5.63	5	6.62
1855–'56	64,000	796,000	11.5	6	5.50	6.37
1856–'57	49,000	527,000	7.5	7.80	6.37	9.25
1857–'58	103,000	643,000	10.2	7.14	6.31	9.25
1858–'59	149,000	751,000	10.5	7.03	6.75	7.38
1859–'60	228,000	1,244,000	15.1	6.61	5.75	7.37
1860–'61	83,000	1,019,000	12.1	7.66	6.50	10.12
1861–'62	(*)	368,000	9.6	15.65	10.12	25.25
1862–'63	(*)	250,000	6	23.04	21	27.75
1863–'64	(*)	563,000	11.2	28.38	26.50	31.75
1864–'65	(*)	347,000	5.9	20.44	13.50	27.50
1865–'66	282,000	1,143,000	15.2	17.53	12.25	25
1866–'67	80,000	1,092,000	13.5	12.85	9	15.75
1867–'68	38,000	614,000	6.8	10.05	7.37	12.87
1868–'69	12,000	583,000	6.6	12.12	10.50	14
1869–'70	60,000	759,000	8.8	10.98	7.75	12.62
1870–'71	105,000	760,000	7.1	8.57	7.50	9.75
1871–'72	55,000	1,486,000	15.7	10.78	9.62	11.81
1872–'73	91,000	1,220,000	11.6	9.65	9	10.50
1873–'74	108,000	1,274,000	11.9	8.52	8.18	9.37
1874–'75	66,000	1,226,000	11.3	7.87	7.18	8.37
1875–'76	120,000	1,168,000	10.8	6.62	6	7.37
1876–'77	120,000	1,001,000	9.6	6.50	6	7.31
1877–'78	43,000	656,000	6.5	6.51	6	6.87
1878–'79	59,000	480,000	5	6.26	5.25	7.31
1879–'80	137,000	677,000	6.5	7.06	6.75	7.62
1880–'81	212,000	978,000	8.3	0.62	5.81	7.43
1881–'82	124,000	771,000	6.3	6.87	6.43	7.37
1882–'83	237,000	936,000	7.3	5.87	5.56	7.12
1883–'84	112,000	1,008,000	8.1	6.20	5.87	6.56
1884–'85	132,000	746,000	6.7	5.87	5.56	6.25
1885–'86	178,000	615,000	5	5.25	4.75	5.62
1886–'87	84,000	812,000	6.2	5.50	5.19	6
1887–'88	182,000	446,000	3.3	5.56	5.18	6
1888–'89	59,000	527,000	3.9	5.93	5.43	6.81

NOTE.—In this table the deliveries to the United States include the shipments to Canada and Mexico, and also cotton burnt in America or lost at sea.

* No data, owing to the war.

IRON AND IRON TRADE.

In the iron market considerable uneasiness is manifest. Prices have crept slowly and surely upwards during the present year (1889). This is due more to the increased cost of raw material and higher wages and a marked development of the home trade than to any great increase in the foreign demand.

The home consumption of iron and steel during the year has been on a scale quite unprecedented, and there has been rapid and serious depletion of the reserve stocks—750,000 tons since January 1.

The figures for 1888 compare with those for 1887 as follows:

Description.	1888.	1887.
	Tons.	*Tons.*
Production of pig-iron	7,898,634	7,441,927
Exported as pigs	1,036,177	1,158,174
Total	6,862,457	6,283,753
Other kinds exported, reduced to pigs by adding 25 per cent	3,576,009	3,731,067
Left for home consumption	3,286,448	2,552,686

Additional reason for future high prices is seen in the fact that among the miners there seems to be a determination to greatly restrict the output of iron and coal, the object being to reduce the stocks of pig-iron and give the men more power to enforce their demands for increased wages.

For some time past ship-builders have been among the largest buyers of steel and iron. But prices are now so high that most cautious ship-owners will not take the risk of ordering new vessels. Piece-work rates have advanced in some cases during the recent improvement in trade as much as 100 per cent., and further demands by all iron-workers are feared. Nevertheless, many orders are booked ahead from seven to twelve months, and the opinion seems to be quite general that the present high prices, or higher, will rule for this length of time at least. The increasing demands of the workmen are looked forward to with apprehension, some going so far as to predict the closing of the ship-yards on this account.

Just now the Germans are the largest buyers of English pig-iron, and they are also buying large quantities of steel and machinery and mill-work. Thus England's greatest competitor in the trade becomes one of her best customers. There is at present very little demand from America for iron. This is fortunate for the trade here, for, with the existing high prices and the home and German demand to be supplied, orders from the United States coming briskly now would advance prices to a point that could not long be sustained, and it is frankly admitted that the inevitable reaction would be deplorable.

THOS. H. SHERMAN,
Consul.

UNITED STATES CONSULATE,
Liverpool, December 3, 1889.

COTTAGE HOMES FOR PAUPER CHILDREN.

REPORT BY CONSUL SHERMAN, OF LIVERPOOL.

The foundation stone of the cottage homes at Fazakerley, near Liverpool, was laid on August 9, 1887, by John Houlding, esq., member of the city council of Liverpool, chairman of the board of guardians of the poor of the West Derby Union. The West Derby Union embraces twenty-two townships (not including Liverpool, which has its own board of guardians), having a total population of 400,000, and covering 35,907 statute acres, with a property valuation of about $250,000,000.

The union is formed for the sole purpose of caring for the poor of these townships. A board of guardians is appointed with full power to assess and collect the poor rates, and to spend the money for the benefit of the poor. Five per cent. of the estimated total value of the property is taken as the rental value, which for this year is figured at $12,500,000. This sum is reduced by 15 per cent., leaving a little over $10,000,000 as the ratable value of the union. On this latter amount 6 per cent. is levied, and every penny collected, for the support of the poor.

The work-house of the union, situated in Walton-on-the-Hill, comfortably accommodates nearly three thousand paupers, and is said to be the finest and best conducted establishment of the kind in the Kingdom.

When it was decided to erect a separate establishment for pauper children, a loan of $500,000 for the purpose was negotiated by the union. Forty acres of ground in Fazakerley, several miles away from the work-house, was purchased, and the foundations were at once laid for eighteen cottages, a superintendent's residence, a porter's lodge, a probationary house, an infirmary, a school-house, a swimming bath, a public hall, a store-house, and workshops—all handsome and substantial buildings of brick and stone. The cottages are on either side of a broad avenue—the boys' homes on one side and the girls' on the other—and each has a pretty lawn and flower garden in front and a spacious play-ground in the rear, a part of which is roofed in and so available in wet weather.

Each cottage is planned to accommodate thirty children in a really comfortable and home-like manner. Every girls' home is in charge of a "mother," appointed by the board, at a salary of $100 per annum and rations. For this position a widow is chosen. Neatly furnished apartments in the cottage are provided for her, and if she have children they are treated precisely as are the other children forming the household. On the ground floor of the cottage there is a large dining-room, where all the meals are served. There are most perfect arrangements for cooking, for keeping the children in a clean and healthy condition, for teaching the girls laundry work and sewing, and giving them a practical knowledge of all kinds of domestic work. All of the work of the house is done by the children and the "mother." In the upper story are the dormitories, and here is also observed the forethought, the intelligence, and the kind-heartedness which the guardians have manifested throughout. Comfortable snow-white beds are provided for the older girls, and cots for the smaller ones, who are watched over and cared for by their seniors. Beside each bed is a box, in which books or toys may be placed. Altogether, it is a touching sight to see these human waifs in their cozy abode, contented and joyous, and quite oblivious to the wretched condition from which they have been raised. They have no badge of uniform, but are neatly clad in dresses such as the children of respectable working people wear. Each dwelling is fitted up with the most approved sanitary appliances and requisites, and the design of the structure internally is such as to secure the greatest amount of light and ventilation and ready access to the different apartments.

The boys' homes, structurally, are in every respect similar to those of the girls, but the method of management is necessarily different. A man and his wife are engaged to manage each home. A condition of the man's appointment is that he must possess a trade and have the ability to impart instruction to the boys, all of whom are to undergo an industrial training. In this way the boys are taught carpentry, tailoring, shoe-making, plumbing, painting, farming, gardening, and other trades. There are spacious workshops provided and plenty of scope given for preparing the boys to earn a respectable living when they go out into the world. Indeed, every inducement is offered them to grow up honest, industrious, and trustworthy workmen. The combined salaries of the "father" and "mother" of a boys' home is $225 and rations.

Before a child is finally assigned to a home he is detained in the probationary house for fourteen days, or until it is found that he is fit to associate with the other children.

There are now three hundred children in the home, ranging from eighteen months to fourteen years of age. The full complement of six hundred will soon be admitted, and provision will then be made for the enlargement of the establishment.

The kinds and quantities of food provided are shown in the table hereto annexed. The cost of food for each child is now about 60 cents per week.

I shall be glad to furnish any other information respecting this model institution.

THOMAS H. SHERMAN,
Consul.

UNITED STATES CONSULATE,
Liverpool, October 15, 1889.

[Inclosure in Consul Sherman's report.]

The "fathers" or "mothers" are to make out weekly their list of the articles required for the week for their cottage, and send it to the superintendent.

The quantities in such list must not be more than are given in the table following, for the number of children actually in the cottage at that time, and as much less as possible, having due regard to sufficiency and the avoidance of waste.

A good housekeeper should, as far as possible, have a small store of provisions in the cottage to meet any extra requirement arising.

Maximum table for stores.

Number of children.	Bread.	Flour.	Meat.	Suet.	Milk.	Potatoes or other vegetables.	Peas or lentils.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pints.*	*Pounds.*	*Pounds.*
11	77	4	11	0¾	77	38	0¾
12	84	4½	12	0¾	84	42	0¾
13	91	4¾	13	0¾	91	45	0¾
14	98	5¼	14	0¾	98	49	0¾
15	105	5½	15	1	105	52	1
16	112	6	16	1	112	56	1
17	119	6¼	17	1	119	59	1
18	126	6¾	18	1	126	63	1
19	133	7	19	1	133	66	1
20	140	7½	20	1¼	140	70	1¼
21	147	7¾	21	1¼	147	73	1¼
22	154	8¼	22	1¼	154	77	1¼
23	161	8½	23	1½	161	80	1½
24	168	9	24	1½	168	84	1½
25	175	9¼	25	1½	175	87	1½
26	182	9¾	26	1½	182	91	1½
27	189	10	27	1¾	189	94	1¾
28	196	10½	28	1¾	196	98	1¾
29	203	10¾	29	1¾	203	101	1¾
30	210	11¼	30	1¾	210	105	1¾
Rations of—							
"Father"	7	1	6	0¼	7	7	....
"Mother"	7	1	5	0¼	7	7	....

Number of children.	Butter.	Lard.	Cheese.	Oatmeal.	Rice.	Sugar.	Leaf sugar.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
11	0¾	0¾	1¼	2¾	1¼	2¾	....
12	0¾	0¾	1½	3	1½	3	....
13	0¾	0¾	1½	3¼	1½	3¼	....
14	0¾	0¾	1¾	3½	1¾	3½	....
15	1	1	1¾	3¾	1¾	3¾	....
16	1	1	2	4	2	4	....
17	1	1	2	4¼	2	4¼	....
18	1	1	2¼	4½	2¼	4½	....
19	1	1	2¼	4¾	2¼	4¾	....
20	1¼	1¼	2½	5	2½	5	....
21	1¼	1¼	2½	5¼	2½	5¼	....
22	1¼	1¼	2¾	5½	2¾	5½	....
23	1½	1½	2¾	5¾	2¾	5¾	....
24	1½	1½	3	6	3	6	....
25	1½	1½	3	6¼	3	6¼	....
26	1½	1½	3¼	6½	3¼	6½	....
27	1¾	1¾	3¼	6¾	3¼	6¾	....
28	1¾	1¾	3½	7	3½	7	....
29	1¾	1¾	3½	7¼	3½	7¼	....
30	1¾	1¾	3¾	7½	3¾	7½	....
Rations of—							
"Father"	0¾	....	0¾	....	....	0½	0½
"Mother"	0¾	....	0¾	....	....	0½	0½

Maximum table for stores—Continued.

Number of children.	Cocoa.	Raisins or currants.	Treacle.	Bacon.	Coffee.	Eggs.	Tea.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Number.*	*Ounces.*
11	2	1¼	0¾				Three ounces to each home per week.
12	2¼	1½	0¾				
13	2¼	1½	0¾				
14	2½	1¾	0¾				
15	2¾	1¾	1				
16	3	2	1				
17	3	2	1				
18	3¼	2¼	1				
19	3½	2¼	1				
20	3¾	2½	1¼				
21	3¾	2½	1¼				
22	4	2¾	1¼				
23	4¼	2¾	1½				
24	4½	3	1½				
25	4½	3	1½				
26	4¾	3¼	1½				
27	5	3¼	1¾				
28	5¼	3½	1¾				
29	5¼	3½	1¾				
30	5½	3¾	1¾				
Rations of—							
"Father"		0½		1	0¼	6	4
"Mother"		0½		1	0¼	6	4

TRADE OF LEITH IN 1889.

REPORT BY CONSUL BRUCE.

CANNED MEATS.

These have been in rather better demand in some parts of the country during the summer months, but the enhanced price has somewhat curtailed consumption. Better wages are now being earned by the laboring classes; and, as they are getting American and Australian (frozen) fresh meat at low prices, they are giving this the preference.

SALMON.

Salmon has been in less demand, owing to the largely increased price asked for it. A few years ago the public were buying a 1-pound tin for 5 pence; they are now paying from 8½ to 9 pence. As the laboring classes are the principal consumers, it will be readily seen that at 9 pence it is beyond their reach. The quality has not been what it formerly was, many brands packed in outside rivers (other than the Columbia River) being very inferior.

CANNED FRUITS.

These have been in large supply, at considerably lower prices than those ruling in former years. The result has been a materially increased consumption. These goods were largely consigned by packers, but it is doubtful whether this course has tended to benefit them. The probabilities are that they have lost considerably by not allowing buyers on this side to order what they wanted in the usual way.

BUTTER.

On the whole, so far as the year has gone, there is a general feeling of disappointment in the trade. The demand has been fitful and limited, and the profits have, as a rule, not been satisfactory. As regards the continental business, it was materially unsettled by a decline in prices at a period of the season when there has almost invariably in previous years been a steady advance in value. Only now, it may be said, as the season is rapidly closing, are consumers beginning to recover from the want of confidence in any reaction taking place, and prices are at last showing decided indications of a steady rise. The quality of Danish butter, particularly the summer production, has given occasion to a great many complaints, as it has not kept very well, and caused losses. During the grass-make a fair trade was done in New York creamery and the finer grades of ladle-packed butter, as prices were so universally moderate; but it is said the quality, as a rule, leaves much to be desired. I am informed it is oily in flavor or oversalted, and consumers soon got tired of it. The finest Canadian creamery has been preferred, but this year a great deal of it has not been altogether free from the fault of oiling.

CHEESE.

Owing to the large surplus left over from last year, the trade in American cheese was much later in opening this season. Buyers continue to show a marked preference for Canadian cheese, as compared with American. There was, however, a decided improvement in quality in some of the Wisconsin factories, but there was no observable change for the better in the quality from the Eastern States, these being only suitable for immediate use. There is a considerable falling off in the demand for loaf cheese, better known in the trade as "Young American."

STEAM COMMUNICATION WITH THE UNITED STATES.

There is no special feature in the imports to Leith by the Arrow Steamship Company from New York. The New York trade keeps well up, and, owing to the development of American trade with Leith district as a whole, it has been found necessary to start a regular line of steamers from Baltimore—the Empire line. At present the vessels are only running monthly, but in the course of a year or so it is expected there will be many more, as it is opening up a large southern traffic, untouchable through New York. Through traffic to the continent of Europe and the Baltic, chiefly in cotton, has greatly increased of late, and Leith, as a point of transshipment, is almost unrivaled on the east coast of Great Britain. The present year's freights have been good, and the outlook is steady and promising.

THE WOOLEN INDUSTRY.

The improvement which had begun shortly before the date of my last report has continued till now, and the prosperity which existed for many years prior to the intervening period of depression has been satisfactorily re-established. In November of last year working overtime, *i. e.*, beyond the usual ten hours, was resorted to by many firms, and the prices of wool and yarn became firmer, with the prospect of advancing. In February the exceptionally mild weather militated against orders being freely given for goods for the present winter, stocks not having been sufficiently reduced to encourage buyers. The taste for the finer class of worsteds almost died out, and was succeeded by a demand for woolen and worsted cheviots. By March confirmation orders for winter goods had become general, and repeat orders for summer goods came in more freely, and a distinct impetus was given to trade. By June the most sanguine expectations of manufacturers were not disappointed. The raw material had begun to advance, and prices with it; but manufacturers will not reap the benefit of this advance until the spring goods are settled for. There is no doubt that during the last six months tweed manufacturers have been more fully employed than for several years past. At the present time the looms are busy with spring and summer goods for next year, the delivery of which commences in November and continues until February. The orders in hand will, in most cases, keep manufacturers busy for six months to come. The classes of goods that have had the best market are knickers, mostly of light coloring. Cheviots and cross-bred worsted goods have also sold readily, the latter chiefly of darker hues. The most popular colors for tweeds have been blue, slate, and smoke. Wools are still rising in value, and recent advices from Australia and New Zealand indicate an upward tendency for new season's wool. The relations between employés and employers have had a slight hitch, owing to a strike of dyers' laborers in the town of Hawick; but, with that exception, the cordial sympathy which exists between masters and men has been unaffected.

HOSIERY.

The hosiery trade in the south of Scotland, both for summer and winter goods, during the present year has been prosperous, and the prospects for 1890 are expected to be even more so. Business was stimulated by the rise in the price of the raw material and by the fact that retailers' stocks had become much depleted, in consequence of a practice, which has now prevailed for some time, of only purchasing for immediate requirements. There has been a large demand for the better class of goods, while in those of an inferior quality business has been comparatively limited. In my last report I drew attention to the growing demand for pure wool underclothing and explained its nature, as opposed to that of Jaeger or German hosiery. Goods made from this class of yarn, and now well known as natural or sanitary goods, have been much in request, and promise to be more so. They are made from pure, undyed wool of the finest description, and must always command a high place in the market. Hitherto hosiery made in the district (and Hawick may be specially mentioned as the principal seat of the trade) has been manufactured in hand-looms. These are being rapidly superseded by power-looms, a result brought about in large measure by the actions of the trade-union, whose demands for overtime payment became so exorbitant that little or no profit was left to the manufacturer. This innovation is likely to spread largely next year, and though it is said by some that goods so made are inferior to those made in hand-looms, this statement is combated by the makers, who allege that the contrary is the fact. In Hawick one new hosiery manufactory has been established, and machinery has been extensively increased in the older factories.

AGRICULTURE.

Farmers have had an exceptionally satisfactory season. Prices started low, but with an upward tendency. Oats, which have had the heaviest field, command a lower price than usual; but barley, which is developing good malting properties, is rising daily. Potatoes have proved one of the best crops known for years both in quality and quantity, but prices have rated low, the finest Regents bringing 40 shillings a ton. Though the weather toward the close of the season became broken, the harvest had been well got in. The prices of store stock of all kinds are exceptionally high, being 30 to 40 shillings per head over last year. Beef and mutton have not risen. Agriculturists are congratulating themselves upon this improvement, as it indicates a reaction from the long period of depression.

WALLACE BRUCE,
Consul.

UNITED STATES CONSULATE,
Leith, October 26, 1889.

COMMERCE AND INDUSTRIES OF LEEDS.

REPORT BY CONSUL WIGFALL.

In forwarding the consolidation of the invoice books for this consular district for the year ending September 30, 1889, the accompanying comments are offered and a few additional figures furnished, which may serve to throw some light upon the current commercial situation.

EXPORTS TO THE UNITED STATES.

As will be seen from the table at the end of this report, the gross value of declared invoices for the consular district was $6,018,425.98, as against $5,921,449.57 last year, being an increase this year over last of $96,976.41, or 1⅝ per cent. This increase has not been equally divided between the main office and the consular agency at Huddersfield, the returns for the Leeds office (only) showing an increase for the year of $490,372.64, while the agency makes a decrease of $393,396.23, leaving the net increase, as above stated, $96,976.41.

The following table indicates the local and periodical increments and decrements of declared values at Leeds and Huddersfield during the year under consideration:

Statement of declared invoices, Leeds consular district, for the year ending September 30, 1889, separate quarters being compared with those of the previous year.

Office.	Term.	Amount.
Leeds	December 2, 1888	$817,609.80
	December 2, 1887	631,831.48
	Increase	185,778.32
	March 2, 1889	627,834.66
	March 2, 1888	545,972.08
	Increase	81,862.58
	June 2, 1889	523,963.23
	June 2, 1888	447,932.27
	Increase	76,030.96
	September 2, 1889	575,917.85
	September 2, 1888	429,217.07
	Increase	146,700.78
	Leeds office, total increase	490,372.64
Huddersfield	December 2, 1888	604,821.79
	December 2, 1887	897,228.55
	Decrease	292,406.76
	March 2, 1889	866,125.29
	March 2, 1888	976,974.20
	Decrease	110,848.91
	June 2, 1889	972,562.48
	June 2, 1888	939,095.66
	Increase	33,466.82
	September 2, 1889	1,029,590.88
	September 2, 1888	1,053,198.26
	Decrease	23,607.38
	Huddersfield office, total decrease	393,396.23
	Total increase, consular district	96,976.41

LEEDS CORPORATION ACCOUNTS.

The appended clipping from the Yorkshire Post of September 16, 1889, gives a summary of the borough accounts:

The abstract of accounts annually prepared by Mr. W. Derry, borough accountant, has just been issued in the form of a volume of four hundred pages. On borough fund account, the police force cost (excluding a balance of £6,680) last year £36,766, towards which £18,338 was received from the treasury, rents, licenses, and other sources; the registration of voters and the election of councillors, auditors, and assessors cost £1,785, toward which the overseers contributed £533; the borough quarter sessions, £1,574, £1,082 was returned by the treasury; the assizes, £430, which was fully returned; contributed in county rate, £4,000; cost of town clerk's department, £3,318; borough accountant's department, £1,660; magistrates' department, £3,101 (returned £3,509); coroner's department, £1,353; judges' lodgings, £389; town-hall, £2,920 (returned £542); municipal offices, £1,766; recreation grounds, £2,299; miscellaneous, £663; the contagious diseases (animals) act, £1,086; precepts to the school board, £54,700; reformatories, £424; interest, £7,388; sinking fund, £1,961; electric lighting, £577; tram-ways provisional order, £329; making a total of £140,822. The sum of £119,322 was raised by borough rates, leaving a balance on the expenditure side of £5,369 after the other sources of income had been taken into account. The gas-works revenue account shows an expenditure of £279,780, and an income of £295,609, the balance of profit being £15,829, which is reduced to £6,421 on setting apart £9,407 for redemption of debt. The expenditure on water-works revenue account, including interest on debt, was £681,199, and after setting aside £14,129 towards the sinking-fund account a surplus of £6,931 remained, the net profit for the year, excluding the last-mentioned item, being £21,061. The mortgages, etc., amount to £4,493,839, and the total indebtedness of the corporation on capital account is set down at £5,518,077. Of this £395,218 has been expended on the town-hall, municipal offices, police stations, recreation grounds, etc.; £1,379,875 on improvement account, including Roundhay Park; £469,530 on main sewers, £78,878 on highways, £1,074,744 on gas-works, £1,576,738 on water-works, £137,448 in advances to the school board, and £174,087 remains as unappropriated capital. In 1886 the total rates laid by the council amounted to £281,418, in 1887 to £288,428, and in 1888 to £294,973. The increase applied pretty equally to all the townships in the borough.

WHITBY SHIPPING CIRCLES.

Continued activity is reported in the Whitby shipping circles, and the demand for shares in the better class of property in a recent report is called brisk. All the steamers were said to be in full employment, and earning what were considered very good dividends. This method of ship-owning, by which a combination of small shareholders assumes the functions of a single capitalist, building and navigating their vessels with an efficiency approximating the most successful individual ownership, offers a striking example, otherwise so often demonstrated in these times in Great Britain, of the capacity to derive, through aggregation, effective force from atoms which, in the absence of organization, are almost impotent.

In conclusion, whether we regard interior trade or foreign commerce, mechanical conversion or primary production, in considering the conditions which now prevail and the prospects for the future, it may truly be said that it has been a long while since there was so much in the outlook to gratify and to encourage the mass of the population of this Kingdom.

The discontent among the working classes, which undoubtedly exists, is a discontent aroused by the sight of better things; and, fortunately, those better things are not wholly unattainable. Witness the constantly recurring statements of successful strikes and the increased rates of wages. Manufacturers and miners are busy, and employed profitably; farmers and stock men have reason to be grateful for the returns from the soil; and the individuals composing the great body of the people outside of these specific classes are sharing fully in the general results of the prosperity which is now patent throughout the land.

Statement showing the value of declared exports from the consular district of Leeds to the United States during the four quarters of the year ending September 30, 1889.

Articles.	Quarters ending—				Total for the year.
	December 31, 1888.	March 31, 1889.	June 30, 1889.	September 30, 1889.	
Cards and card clothing	$2,438.79		$4,290.16	$3,070.64	$9,799.59
Chemicals, dyestuffs, etc	34,837.21	$41,447.18	35,123.56	28,965.46	140,373.41
Confectionery, etc	1,789.05	3,844.45	5,196.14	951.04	11,780.68
Cottons	18,872.03	18,726.16	10,830.12	18,975.32	67,403.63
Cotton and mohair			5,895.14	5,816.04	11,711.18
Cottons (sewing)	19,974.93	12,650.50	13,570.28	18,289.75	64,485.46
Cotton velvets		4,120.18	404.38	2,091.60	6,616.16
Cottons and linens	2,845,84	2,620.20		6,587.85	12,053.89
Cottons and silk seals		73,495.16			73,495.16
Earthenware, bricks, etc	18,060.14	15,744.32	25,504.43	42,985.06	102,293.95
Fustians			2,210.84	752.50	2,963.34
Grease, etc	1,662.30	2,362.62	2,209.25	269.58	6,503.75
Hair, wool, etc	431,381.40	237,079.98	108,318.68	185,486.78	962,266.84
Leather, glue, etc	5,942.40	5,305.72	6,730.85	7,015.79	24,994.76
Linens, twines, etc	1,405.32	4,444.43	4,473.26	4,695.69	15,018.70
Metals, machinery, etc	78,369.47	81,905.64	55,704.29	68,512.59	284,491.99
Miscellaneous	2,794.51	3,678.81	1,532.23	430.77	8,436.32
Orchids, plants, etc	4,600.79	144.90	938.75	2,323.39	8,007.83
Paper-hangings	237.97	5,414.59			5,652.56
Shawls, etc	1,492.30	7,855.71	1,725.90	10,041.20	21,115.11
Silk				3,297.85	3,297.85
Silk and cotton	46,613.58		223,645.18	277,913.16	548,171.92
Silk, cotton, and mohair		14,080.32	12,875.10	13,951.08	40,806.50
Silk and worsted		1,185.37	2,140.16	7,244.16	10,569.69
Skins, furs, etc	23,516.12	20,740.68	22,864.99	34,709.93	101,831.72
Stationery	863.89	61.89		480.18	1,405.96
Woolens, etc	246,421.56	207,880.87	240,976.29	190,860.58	886,139.30
Woolens, worsteds, cottons, etc	70,130.91	104,273.59	97,136.86	106,917.10	378,458.46
Worsteds, etc	408,181.08	624,896.68	612,228.87	562,873.64	2,208,180.27
Total	1,422,431.59	1,493,959.95	1,496,525.71	1,605,508.73	6,018,425.98
Total for preceding year	1,529,060.03	1,522,946.28	1,387,027.93	1,482,415.33	5,921,449.57
Increase			109,497.78	123,093.40	96,976.41
Decrease	106,628.44	28,986.33			
Percentages:	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Increase			7⅞	8 5/16	1⅝
Decrease	7	1⅞			

F. H. WIGFALL,
Consul.

UNITED STATES CONSULATE,
Leeds, October 8, 1889.

American steel rails for Mexico.—Consul Fechet, of Piedras Negras, reports, under date of March 8, 1889, that 5,000 tons of American steel rails arrived at that port on March 8 from Pittsburgh, Pa. This is the first shipment of American rails which has ever been made to Mexico. At present prices the American can be laid down cheaper than the European rails in Mexico.

AN ENGLISH POULTRY SHOW.

REPORT BY CONSUL WIGFALL, OF LEEDS.

The following is condensed from a communication to the Yorkshire Post, of November 23, 1889:

The county of York is the principal English county in size, and is noted in the Kingdom for the attention paid by its people to stock breeding of various kinds. Poultry fanciers are well represented. One of the most interesting events of the year to these is the Crystal Palace show, held at this season. This is the twenty-first year of the series. The English poultry bears a high reputation on the Continent, where its improvement is carefully watched and benefited by.

About one hundred subvarieties of domestic fowls are shown of those which are reckoned to exist, and some thirty of water fowl. At the Crystal Palace show this year there are nearly seven thousand entries of stock. There are British breeds of fowls, French breeds, those of the Mediterranean littoral, the Asiatic, and the American, besides a medley of varieties with characteristics of their own. One of the most esteemed of the English sorts is the old English game — legs like stilts, tail small and whipped, long necks, keen, snake-like heads, and rich plumage. Even more highly regarded is the Indian game, an artificial variety, valuable for breeding for market. Of the English game are mentioned: Black-breasted reds — red eyes, willow legs; brown-breasted reds — gypsy faces, black eyes, black legs; Duck-wing — maroon back, cream-colored hackle; pile (or "pied"), with yellow legs; black game, white game, brassy-winged (black, with gold on wings); hennies (in color like a partridge — cocks much like hens.) Most valuable of all are the Dorkings. It is largest, making most and best meat, with white legs and feet, a point demanded by the poulterer; and the hens are unequaled for laying and setting. There is no fowl like the Dorking for profit; none so good for a cross. There are four varieties, dark or colored, silver gray, white, and cuckoo. The first-named is the largest and most desirable, particularly as it is not necessary in that variety to breed absolutely for color and marketing, as in the others.

The Hamburgs are largely bred in Airedale and Wharfedale. Their colors and marking are wonderfully perfect. There are black with metallic sheen, golden penciled and golden spangled, and silver penciled and silver spangled. The fowls lay more than any others in the course of the year, though the eggs are small.

The French breeds are not generally remarkable for beauty either of form or plumage, the French aim being the production merely of good flesh with capacity for egg laying. Otherwise they care little for special points. The French kinds taken up specially by English breeders are:

Crêvecoeur, black, with globular bunch of feathers on the head and with beard and whiskers; lays large eggs and makes fine meat, but hens do not set well.

Plèçhe, horns on the head, black plumage, and large layer of large white eggs, and finest quality of flesh.

Houdan, the French Dorking, but smaller than the English bird; has five toes (an admired distinction) and black and white mottled plumage, with crest like the Crêve. The Mantes, a famous French breed, is but an improved Houdan.

Of the most valuable of the French sorts little known in England are the Maus, the Brerse, and the Gournay, all good for profit rather than beauty of plumage or form.

Among the Mediterranean breeds are the Black Spanish — ornamental, but little else. A black fowl with a large single comb; face and ears covered with a substance like kid, hanging below the beak some inches, and stretches to between 3 and 4 inches in width. It is sometimes quite a deformity, and incapacitates the fowl for eating and seeing. In spite of this, they sell very high on account of their abnormal development, costing from £20 ($97.33) to £40 ($194.66) per head for specimens in which this milk-white excrescence exceeds a certain size.

The Minorca, a kindred variety to the last named, is of great economical value, good layer, hardy, and producing fairly good meat. A tendency in breeding these fowls is noted towards increasing the size of the comb, which is a doubtful good.

The Andalusian is another branch, but differs from the Minorca in color, being of a slate-like blue. Breeders have tried to secure a black edge to every feature in these fowls, but have not succeeded.

Another of this family is the Leghorn, which is the common egg-producing fowl of Italy, where it is found in all shades and colors. This fowl is said to have been taken to America some twelve years since, and there improved and sent to England as a "brand-new fowl." It created a great stir among fanciers, but it is said that equally good birds can be bought in Switzerland and Italy at one-fiftieth of the cost. The Leghorns are good layers.

The Plymouth Rock, from the United States, is called a composite from various sources. For several years after its arrival in England it was little noticed, but about ten years ago it suddenly became popular, and is to-day one of the breeds which is most esteemed. It is described as speckled, or cuckoo-marked, with yellow legs and coarse flesh, but hardy and a fair layer. A similar breed, but with a comb of different shape, is the Dominique. A third American variety is called the Wyandotte, a more recent product, in which the plumage is a distinctive mark. There are said to be perhaps thirty clubs in England formed for the purpose of improving and popularizing the different varieties of fowls.

Asiatic breeds include the Brahma, the Cochin, and the Langshan, the last named an offshoot from the Cochin, whose breeders have endeavored to adapt it more to use than ornament. The Cochin was introduced here from the United States forty years ago, and they were sold at from £40 ($194.66) to £60 ($291.99) a head.

The Brahma is the most important of the eastern breeds. It comes also remotely from the Cochin, but in a different type of color from those as they now are. They have sold as high as £50 ($243.33) apiece. The English breeder has converted plain gray-feathers into a combination of transverse bars as distinct as the stripes of a zebra. Much energy and money have been spent in this way to what would seem a not quite adequate end.

Other varieties are the Spangled Polish, the Black Polish, with white snow-ball crests, but of very little use; the Silkies, whose plumage is like silk, and which has purple flesh; the Sultan, a Turkish fowl, small, with white feathers, feathered feet, and globular top-knot; the Rumplers, without tail; the Frizzled, the Naked Necks; the Scotch Gray, or North British Dorking, valuable for the farmer; the Malay, large and coarse, but game-like, though of indifferent quality; the Yokohama, with an abnormally long tail, like a pheasant; and the Phenix, of which the hens are feathered like cocks, which latter have tails 5 feet long.

Of water fowl, all but the White Aylesbury, the Rouen, and the Chinese breed, known as the Pekin, are merely ornamental. The classes in England said to be morbidly fond of poultry raising are, on one hand, the country residents of the wealthier class, and, on the other, the manufacturing operatives and miners.

F. H. WIGFALL,
Consul.

UNITED STATES CONSULATE,
Leeds, December 4, 1889.

COMMERCE OF GIBRALTAR.

REPORT BY CONSUL SPRAGUE.

ABSENCE OF AMERICAN SHIPPING.

The complete absence of any of our mercantile shipping from this port during the past quarter affords at present the most striking feature of the almost total suspension of our flag in its maritime intercourse with the numerous sea-ports bordering along the Mediterranean. The carrying trade from the United States in previous quarters hardly shows any better result, and the carrying trade in American produce direct from the United States for this market may now be considered to be completely under the control of British and Italian steam and sailing shipping, which is constantly arriving at this port direct from United States ports. Their cargoes have so far been composed of refined petroleum, flour, canned provisions and fruits, perfumeries, lumber, and tobacco in moderate quantities. Tobacco does not now figure in this market as largely as heretofore, since the demand for it continues to be gradually decreasing to very small proportions compared with former years.

DRY-DOCK.

The contemplated building of a dry-dock at Gibraltar still continues in abeyance. The carrying out of such an important work would certainly prove of great advantage to the Gibraltar laboring classes, and if ever completed would no doubt improve its maritime interests.

It is supposed that the cost of a good dock would reach the sum of £300,000, besides requiring another £50,000 for working capital. This heavy outlay, added to the opinion of many who doubt whether, in the event of a war, vessels of war would benefit much by it, seem to be some of the reasons for the consideration of the matter being indefinitely postponed by the British Government.

The paramount necessity of rendering the defenses of this fortress in a proper condition to face the important improvements going on with regard to every thing connected with warlike implements against land defenses seems to be at this moment the all-absorbing question with the British military authorities, and is no doubt one of the chief reasons for treating the project for a dry-dock at this moment with apparent apathy.

FORTIFICATIONS.

The work of erecting three citadels on the summits of the rock of Gibraltar is proceeding with activity, and is being accompanied by constant heavy blasting. No one beyond those engaged on the works and officials on special duty are allowed to approach them. The engineers and masons employed thereon are also composed entirely of men belonging to the royal engineer department, assisted by working parties detailed from the different line regiments quartered in this garrison, to the exclusion of all civilians and foreign bricklayers and masons, whose great practical experience had hitherto invariably obtained for them a preference in Government works connected with this fortress.

GUNNERY.

Gun practice forms one of the constant employments for the artillery force stationed in this garrison. The two 100-ton guns are now periodically worked and fired against floating targets toward the Straits of Gibraltar at a distance of about 2 miles from the guns. Both these pieces of ordnance have recently developed some imperfections in their carriages during their last firings, their recoil proving to be so excessive as to cause some damage to their buffers and two iron plates, which put them out of action for the time being. These defects are now being actively repaired and made good.

TOBACCO MONOPOLY IN SPAIN.

The syndicate at present controlling the tobacco monopoly in Spain has redoubled its efforts to endeavor to completely destroy the contraband trade from this port, and is incessant in its endeavors through active agents in urging the Government officials to adopt every means possible to attain that object. I may also add that the British authorities continue to show every disposition to assist the Spanish officials in their work for a like result in proximity to this fortress. To expect to obtain complete success seems doubtful, however, and, even if partially so, it only stimulates those engaged in this contraband traffic to more energetic efforts, especially as the profits, when obtainable under those circumstances, are to a large extent greatly increased.

In the meanwhile this situation of affairs has caused much distress throughout the neighboring Spanish villages among a certain large number of their inhabitants addicted from childhood to that illegal traffic. The misery among these classes is now being very keenly felt, owing to the fact that they have always been absolutely dependent upon this kind of traffic, from which they derived at best but a scanty and precarious livelihood.

SPANISH AGRICULTURE AND EMIGRATION.

The agricultural interests in Spain do not seem to improve, and, taking every thing into account, it is not surprising that the tide of emigration throughout Spain, especially from Andalusia, towards the Argentine Republic should still continue without abatement. It seems to be also extending to Chili. Not a month passes but three or four large steam-ships leave this port for South America carrying thousands of these Spanish people from this immediate neighborhood.

The serious proportions which this emigration to Buenos Ayres is already assuming is pronounced by some to be principally due to the interested action of the emigration agents, who appear to succeed in rousing the enthusiasm of these laboring classes in general to such a high pitch that many who even earned very fair wages in Spanish factories and railroads now eagerly emigrate under the impression that they will earn all the money they please on arrival at Buenos Ayres; thus the movement has by degrees become quite contagious and general.

But, to judge from several thousands of these Spanish emigrants who have recently passed through this port to embark on board Spanish, French, Italian, and Argentine steam-ships chartered to convey them to Montevideo and Buenos Ayres, the male portion, though appearing to be hard-working men, well adapted for agricultural, mining, and railroad pursuits, show evident signs of misery and distress in their persons, which is even more marked among the females and numerous children that accompany them. But few seem to be provided with any means beyond the clothes they stand in, which would rather go to prove that only stern necessity has compelled them to quit their native soil in search of a better mode of existence in distant and foreign climes. That many will eventually be disappointed I have not the least doubt; still, Spain seems to be still laboring under such a serious crisis as regards her poor and needy classes, with but small prospects for any immediate improvement, that it is not surprising to witness the present unusual and important stream of emigration going from her shores to South America previous to the setting in of the winter season, when their wants and sufferings would likely increase were they to remain in their native land.

Statement showing the number of vessels entered and cleared at the port of Gibraltar for the year ending September 30, 1889.

Flag.	Entered.			Cleared.		
	Steamers.	Sailing vessels.	Total.	Steamers.	Sailing vessels.	Total.
Argentine	1	....	1	1	....	1
Austro-Hungarian	83	9	92	83	8	91
Belgian	13	....	13	13	....	13
British	5,022	148	5,170	5,008	141	5,149
Danish	49	4	53	44	3	47
Dutch	64	3	67	64	3	283
French	266	23	289	262	21	67
German	105	5	110	102	4	106
Greek	70	6	76	68	6	74
Italian	66	30	96	64	24	88
Norwegian	203	22	225	200	19	219
Portuguese	2	10	12	2	7	9
Russian	25	17	42	25	16	41
Spanish	194	73	267	187	67	254
Swedish	36	14	50	32	10	42
Turkish	4	....	4	4	....	4
United States	5	6	11	5	6	11
Total	6,208	370	6,578	6,164	335	6,499

HORATIO J. SPRAGUE,
Consul.

UNITED STATES CONSULATE,
Gibraltar, October 2, 1889.

THE CORNISH MINES.

REPORT BY CONSUL FOX, OF FALMOUTH.

The following statement contains particulars of the produce of Cornish mines for the year ending December 31, 1888. The official report supplying this has only just been published :

Arsenic and arsenical pyrites.—The total quantity returned was 3,027 tons, the value of which at the mines was $50,850.

China clay and china stone.—The total quantity returned was 342,849 tons, and the value of the same at the open works was $1,126,220.

Copper ore (dressed).—The total quantity returned was 6,838 tons; the value at the mines was $181,082.46.

Copper precipitate.—The total quantity returned was 3 tons, and its value at the mines was $233.59.

Fluor-spar.—The total quantity was 10 tons; value, $24.33.

Slates and slabs.—The total quantity returned was 438 tons, and the value of the same at the quarries was $2,058.52.

Tin ore (dressed) obtained from mines.—The total quantity thus obtained was 12,451.16 tons, and the value at the mines was $3,929,883.67.

Tin ore obtained from open works.—The total quantity was 87.18 tons; value at the open works, $26,420.22.

Tin ore obtained from foreshores and from the refuse of dressing-floors.—The total quantity was 1,742¼ tons, and the value of the same at the works was $369,722.59.

The quantity of tin obtainable by smelting from the three foregoing quantities was 8,080.13, 57.18, and 1,045.6 tons, respectively.

Tungstate of soda.—The total quantity returned was 2¼ tons only; value at the mine, $262.79.

Wolfram.—The total quantity was 60 tons, and the value at the mines, $7,908.06.

Zinc ore.—Total quantity, 134 tons; zinc obtainable by smelting, 64 tons; value, $1,231.21.

HOWARD FOX,
Consul.

UNITED STATES CONSULATE,
Falmouth, November 12, 1889.

MILLING EXHIBITION IN CHILI.

REPORT BY MINISTER EGAN, OF SANTIAGO.

I beg to bring under your notice the fact that, about the month of September next, there will be held here in Santiago an important convention of flour millers, and at the same time an exhibition of milling machinery. The Society for the Promotion of Manufactures (La Sociedad de Fomento Fabril), under whose auspices the convention and exhibition are being organized, undertakes to pay the freight on milling machinery from Europe and the United States to Chili, and also the expenses of the necessary mechanics to erect and operate it, and to pay the freight of the machinery and the expenses of the mechanics back, provided they return within one year. In addition to which, the mill which shall be adjudged the best will receive a prize of 20,000 francs.

From a practical knowledge of the flour-milling trade, I feel convinced that our American mill machinery, which is undoubtedly the best in the world, can secure this prize if our manufacturers will only go into the exhibition in a practical manner.

There are as yet only five or six roller-mill plants in this country, and all but one of these, I think, are of English construction; while, as a matter of fact, all the best mills in Great Britain and Ireland have, within the past few years, erected American machinery. The Chilian millers must, without delay, adopt the roller system of manufacture; and, therefore, the fact of making a creditable exhibit, and especially of securing the premium, would be the means of opening up here, within the next two or three years, a wide field for the manufacturers of American machinery.

I inclose for your information a copy of the general rules under which the exhibition will be held.

Intending exhibitors should communicate at once with the Chilian minister at Washington, Hon. Emilio C. Varas, who will give them all necessary information.

PATRICK EGAN,
Minister.

UNITED STATES LEGATION,
Santiago, January 30, 1890.

MILLING EXHIBITION AT SANTIAGO—GENERAL RULES.

[Inclosure in Minister Egan's report—translation.]

(1) A milling and mill machinery exhibition, organized by the Sociedad de Fomento Fabril (Society for Encouraging Manufactures), will take place by the middle of September, 1890. Manufacturers wishing to exhibit must submit to the rules, and shall enjoy the concessions established in this programme, as hereafter.

(2) The society will take upon itself the payment of freight on mills and the necessary appurtenances or fixtures to set them up, both to transport them to Chili and to send them back to the place from whence they proceed, in case they are reshipped within one year's term. The freight to be paid by the society shall be the sailing ship freight from the port of shipment; but, should the manufacturer deem it more convenient to ship them by steam-boat, the society shall pay the part corresponding to the freight that would have been paid if sent by sailing vessel.

(3) The mills and appurtenances to be sent to this exhibition may be imported into the country without paying any custom-house duties (the stipulations of rule 13 excepted).

(4) The society will also take upon itself the railroad expenses and others to be made for the transportation of the mills and appurtenances from the port of Valparaiso to the place where the exhibition may take place.

(5) The society will furnish the necessary power for the working of the mills that may enter into the exhibition.

(6) The society will furnish in the same way the wheat that may be required for the trials of the said mills.

(7) The society will furnish to the mill manufacturers that may take a part in the exhibition free passages for the operators that may be sent to manage the installation and working of the mills.

(8) The society will also pay for the necessary works to be effected in Santiago for making these installations.

(9) The apparatus that may be sent to the exhibition, exclusive of mills, will not be favored with the concession indicated in rule 7, nor will have any right to the prize, which shall be awarded to complete milling installations exclusively. The society will take charge of the working of these apparatus, and to this effect a sheet of explanations as to their operation shall accompany every application for admission.

(10) The European manufacturers that may desire to take part in this exhibition shall apply to the Chilian legation in Paris, and those of the United States to the Chilian legation in Washington, and present, within the terms that these two legations may fix respectively, their petitions for admission, accompanied in each case by a plan of the mill or a design of the apparatus, also indicating the power required therefor, the width and diameter of the pulley giving motion to the mill or apparatus, and the number of revolutions required by the same for its working.

(11) The manufacturers shall have to furnish at their own cost the necessary elements for the installation, the society paying, as it has been indicated, the freight and expenses for setting up. Independent apparatus, that may not require a special installation, shall be set up by the society in conformity with the explanations alluded to in rule 9.

(12) The mills and apparatus that may be allowed to take part in the exhibition must be landed at Valparaiso on the 1st of July, 1890, at the latest.

(13) Manufacturers not re-exporting their apparatus within one year's term, to run from arrival of same at the port of Valparaiso, shall have to re-imburse to the society the expenses incurred for freight thereof, and shall also pay the custom-house duties that would have corresponded thereto had it not been for the exception granted.

(14) The circumstances to be considered by the jury in granting the prize for the exhibition shall be the following, viz, the quality and quantity of production and the cost price.

(15) A prize amounting to 20,000 francs shall be granted to the mill that may possess, in the highest degree, the above-mentioned qualities; and should there not be a single one having them all, the prize shall be divided up into two—one amounting to the sum of 14,000 francs and the other amounting to 6,000 francs—to be granted to the two mills that the jury may deem to be the best ones presented to the exhibition within the indicated terms. At all events the prizes shall be awarded.

THE UNITED STATES OF BRAZIL.

REPORT BY CONSUL-GENERAL DOCKERY, OF RIO DE JANEIRO.

CHANGE OF GOVERNMENT.

The 15th of November was an eventful day in Brazil, and will ever constitute an important epoch in her history. On the morning of that day, quietly, noiselessly, and without bloodshed, a complete revolution of government was inaugurated in the overthrow of the old dynasty, and the preliminary proceedings looking to the establishment of a people's government commenced. The old Emperor was deposed and, by subsequent decree, banished. His entire family and immediate adherents who refused to accept the new order of things were also sent out of the country. A provisional government was immediately formed, composed of prominent citizens, able statesmen, and, with the exception of the chief and the minister of war, all civilians, and all well-known republicans. The present cabinet, in point of ability, fidelity to trust, and devotion to public interests, outranks any of the late Emperor's advisers. In their rectitude of purpose the people have unbounded confidence, and recognize the change as an established fact and pregnant with fruitful consequences to the prosperity of this wonderful country. A general election has been ordered on the 15th of September next. None can register and vote who can not read and write. An educational qualification is the only restriction imposed. The delegates elected to the constitutional assembly will convene in Rio on the 15th of November, the anniversary of the revolution, and will adopt a constitution for the government of the Brazilian nation. A constitution modeled after that of the United States will probably be adopted. Then the provisional government will be at an end and a true republic will be established. This looks like fair sailing, and indicates fixedness of purpose. In the meantime the authorities, with a view to safety in the removal of anticipated troubles or distracting issues, have issued several important decrees of a fundamental character, the chief of which is the decree severing church and State, and guarantying absolute freedom of opinion in all religious matters. All sects are tolerated, and none are dependent upon the national exchequer for support. They will all have to rely upon voluntary contributions, as they do in the United States.

This emasculation of the church follows legitimately and aptly the event of November 15. Absolute, unqualified freedom of opinion, independence of action in all things, religious and political, are the sum total of individual liberty and modern civilization.

Another decree debars any church from the exclusive right or power to solemnize the marriage ceremony, but requires the ceremony to be performed by a civil magistrate.

NATURAL RESOURCES.

Brazil is an immense country; its territory is over 3,000,000 square miles. Its population is about 15,000,000. Several large rivers with navigable tributaries penetrate its inmost recesses, inviting trade and traffic with the outside world. The soil in many localities is naturally very fertile, and yields in great abundance the cereals essential to man's life, with all the tropical fruits in the greatest profusion, often springing spontaneously from the earth and reaching maturity in the most perfect form of size and flavor. Grass grows well, and it is surprising that there should be so little stock farming. It would be a very remunerative business, and promises in future, with proper organization and management, very large profits. The dairy business is now comparatively unknown here. I am satisfied a dairy farm in the vicinity of Rio would pay immensely. Valuable mines of gold and silver and copper are now attracting attention and inviting development. There are many valuable woods in Brazil. Among them may be mentioned rosewood and several species of mahogany, all of which command enormous prices. The ringing of adventurers' axes is in some places proclaiming their value. The rubber of the Amazon is a source of much wealth to the people who live upon the borders of its valley. This business is almost monopolized by American merchants. Many hundreds of men, with their families, ascend the Amazon, tap the trees, and prepare the rubber in a rough state for market. The laborers are paid for their work in provisions and clothing, and yet the amount of said goods furnished by our country is quite infinitesimal. Coffee is the great Brazilian industry, and is the chief source of the world's supply. The increased consumption by our own people is marked; more than 60 per cent. of the coffee grown here is shipped to the United States.

AMERICAN TRADE OPPORTUNITIES.

Now seems to be a favorable time for American enterprise. The Government has imitated our example in the establishment of republican institutions; the people are with us, and desire more intimate commercial relations with our country. They are wonderfully pleased with the character, style, and (in the main) with the prices of samples of American products submitted for their inspection. The decided superiority of all our goods is readily admitted. Especially is this the case with hardware of every kind, machinery, farming implements, fire-arms, and the coarser and more popular styles of cotton goods. In all classes of dry goods, especially ready-made clothing, hats, boots and shoes, prints, and the finer qualities of textile fabrics, Brazil and the other South American states are almost entirely dependent upon importations from other nations, and the advantages and profits of this immense supply are now the important issue.

HOW TO BUILD UP TRADE WITH BRAZIL.

Of Brazil's great product, coffee, the following statement of exports to the United States will show how large is our consumption thereof (60 per cent. of the total export) and how fast that consumption is increasing:

1886	$25,212,222.28
1887	29,665,399.46
1888	33,689,338.54
1889	34,464,150.86

Besides this, we import from Brazil rubber worth $12,000,000; sugar, $6,500,000; skins, $1,500,000; making a grand total of $54,464,150.86 for last year. Brazil imports from us $7,063,862, leaving a balance of trade against us of $47,400,288.86. This large balance must be met in gold and silver.

The principal imports are flour, wheat from California, lumber from Georgia and Florida, turpentine and resin from North Carolina, and petroleum. The exact quantity of each article imported I have been unable to ascertain. Two very large flour-mills have recently been constructed within the limits of this city, which supply at least 40 per cent. of the flour consumed here. The wheat is brought from San Francisco, Russia, and Argentina. The last-named country is our most formidable competitor in the wheat market. Argentina is constantly increasing her area of wheat, and is endeavoring to monopolize this market.

In view of these facts, and the absolute necessity of opening up to our people new avenues of trade, what are the dictates of common-sense?

(1) We must enter the arena and contend for this valuable prize or surrender the field. No half-way measures will do; such fatal policy has been pursued until we are well-nigh shut out from the market. Other nations are alive to the issue, and are searching for trade and business in every direction and in every way. Their capital is here—in railroads, mines, and bonds, in insurance and telegraph companies, and in steam-ship lines. Foreign banking houses can be found at every street corner where profit can be made or influence exerted. These are potent levers, and unless counteracted will be fatal to us.

(2) This is no time or place for sample exhibitions. The Brazilian people do not purchase by sample. They only buy when they can see the arti-

cle, and they want it delivered at once. They are not willing to await months the tardy arrival of steam-ships or to risk a style of goods unlike the sample. Let large stores, with different lines of goods, be opened in Rio de Janeiro and other places in Brazil and throughout South America, under the control of competent, reliable, and experienced salesmen, who understand the language of the country and who recognize the tastes and the wishes of the people, then the difficulty will be partially surmounted. In introducing machinery and labor-saving implements, men should be on the ground or easily accessible to repair damages in the event of breaks and to assist in managing, to them, the complex machinery. One failure often interferes with additional sales. The tastes of the people should always be consulted, and perfect good faith observed. Cash or early payments must not, at first, in all cases be expected. Long credits have been extended to these people by other nations, yet good merchandise cheap for cash will soon settle the character of payments.

The English merchants experimented a few years ago with the sample order of business, but, not succeeding, they abandoned it, and are now controlling the dry goods trade of Rio de Janeiro, Bahia, Para, and Pernambuco, Montevideo, and Buenos Ayres by establishing stores in these cities and filling them with large stocks of goods from Manchester and other mills. A sample is presented a native Brazilian merchant by a commercial traveler from the United States; he coolly replies: "If you want our trade do as other nations are doing; open your stores and sell on the ground by the case and bulk, or we buy of others who are ready to deliver the goods."

Closer commercial relations should be formed with this country. Faster steam-ships and more of them should be employed in our carrying trade. The Stars and Stripes should become a more familiar spectacle on the high seas and on the bays and rivers of South America. The English flag is predominant, and can be seen in every quarter. A very large percentage of coffee exported to the United States is carried in English bottoms for less money than our steamers can afford to take it. They load with coffee for New York or New Orleans, then cotton to Liverpool, then goods to Rio de Janeiro, thus making three distinct lines of cargo in one round trip. With more business and less expense they underbid our carriers; and they can afford to do so, because of the large subsidies which are paid to steam-ship lines by every government except our own.

Individual enterprise has accomplished much for our country, but there are occasions and circumstances of such momentous importance that private citizens can not meet them. The fostering of a trade with Brazil is an enterprise which has invoked the attention and the energies of other great nations, and success has followed their efforts. The United States has withheld its fostering care, and failure is the consequence. The friendly relations existing between the Brazilians and our own people; the example set us in the honorable endeavor to draw our countries more closely together by an annual appropriation of $100,000 to the American steam-ship line; the recent change of government from a monarchy to a republic—all alike are favorable to us. But these conditions will engender more determined rivalry on the part of European merchants. To secure and hold this trade we must have steamers.

Letters from various parties have been received inquiring what inducements are held out to immigrants. Owing to the recent change of government and the unsettled condition of affairs, no definite information upon this subject has been attainable. Whenever obtained, a special report will be made to the Department in relation thereto.

O. H. DOCKERY,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Rio de Janeiro, January 27, 1890.

IMPORT TRADE OF COLOMBIA.

REPORT BY MINISTER ABBOTT, OF BOGOTA.

I transmit herewith statistics of the import trade of Colombia for the year ending December 31, 1888. These statistics are taken from the monthly manuscript returns of the several custom-houses, which I have personally examined, transcribed, translated, and classified.

In so long and difficult a labor it can hardly be supposed that no errors have been committed. Still, the utmost care has been exercised, and it is believed that the results obtained are reasonably accurate and valuable. Although these statistics are the best obtainable, they are nevertheless unsatisfactory in certain respects:

(1) It is impossible to know from what nations are imported those articles which in the tables are credited to Colombia. These are first imported to Panama or Colon, both of which are free ports, whence they reach the ports of entry. They are properly included as imports, however, as they nearly all come from foreign countries.

(2) It is impossible to know the amount of the imports of Panama and Colon, since, for the reason above given, there are no returns from those points.

(3) It is impossible to give more than the totals of the imports through the important custom-house of Cucuta, as no detailed returns are rendered from that port.

(4) It is impossible to give the values of the articles imported, as the returns of values are of the totals of countries only; so that the returns of weights are all that are available.

(5) These weights are gross weights, including that of the packing. It will be seen that the total imports amount to $10,281,517.

In my No. 32, of September 23 last, I gave the total exports for the year 1888, reduced to a gold basis, at $9,015,861.

The imports, exclusive of those of Panama and Colon, being $10,281,517, and the exports being $9,015,861, leaves a balance against Colombia of $1,265,656.

In addition to this, it should be remembered that a large proportion of the gold and silver exported is the property of foreigners, from which no Colombian derives any advantage, except the important incidental advantages arising from the development of the mining interests of the country. But gold and silver so exported should not be reckoned as a part of the legitimate trade, as they leave the country and do not return in any form, and so do not help to pay for the imports. The gold and silver exported, on a gold basis, amounted to $4,059,660.

According to persons familiar with the mining products, it is supposed that a conservative estimate of the proportion of gold and silver exported, which bring no returns to the country, amounts to half of the whole, or $2,029,830. Deduct this from the whole amount of the exports, reckoned on a gold basis, and there remains as an actual trade export the sum of $6,986,031. Actual imports, $10,281,517; actual trade exports, $6,986,031; balance of trade against Colombia, $3,295,486.

Examining the statistics with reference to trade with the United States, the following suggestions may be made: Of the importations the percentages for the several countries were—England, 45.2; France, 19.1; Germany, 11.4; United States, 10.1; from the four countries, 85.8 per cent. These are percentages of values.[*]

For the first time, it is said, the importations from Germany exceed those from the United States. The Germans are exhibiting great activity, especially in the iron and steel products, and are pushing their trade in every available, legitimate way.

It should be noted, however, that the great majority of the imports through Cucuta are from the United States; but any attempt to state the proportion would, perhaps, be confusing, and certainly inaccurate.

The imports of Cucuta were, in kilograms, 3,816,609, valued at $1,213,665. Of this 1,807,480 kilograms, valued at $428,863, were imported for Venezuela, and 1,824,392 kilograms, valued at $687,800, for Colombia. The balance was in the warehouse January 1, 1889, and its destination was not ascertained.

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[*] NOTE BY THE DEPARTMENT.—An examination of the official trade returns of England, France, and the United States for the year 1888, the same year embraced by the Colombian returns above given by Minister Abbott, gives the following results: Exports from England to Colombia, $5,508,000; exports from France to Colombia, $9,900,000; exports from the United States to Colombia, $5,024,000. Of the French exports $2,026,000 were foreign goods; of the English exports $272,000 were foreign goods; of the American exports $100,000 were foreign goods. This would leave the trade proper of the several countries as follows: Exports from England to Colombia, $5,236,000; exports from France to Colombia, $7,874,000; exports from the United States to Colombia, $4,924,000.

These figures alter the Colombian percentages in a very marked degree, giving England only a very poor second instead of first place, and placing the United States very close to England instead of being less than one-fourth the percentage given to England. There are no returns at hand upon which to base an estimate of the exports from Germany to Colombia—they are undoubtedly less than the American exports thereto.

It will be seen that some of the principal articles imported, together with the approximate percentage thereof, coming from the United States, are:

Articles.	Percentage.
Candles	8 per cent.
Kerosene-oil	99 per cent.
Matches	34 per cent.
Flour	93 per cent.
Lard	95 per cent.
Rice	9 per cent.
Sugar	82 per cent.
Salt	None.
Paints, etc	59 per cent.
Bottles	15 per cent.
Crockery ware	Less than 1 per cent.
Tools of all kinds	30 per cent
Machinery (except sewing-machines)	68 per cent.
Sewing-machines	85 per cent.
Nails and tacks	9 per cent.
Wire fence	67 per cent.
Boots and shoes	3 per cent.
Leather	3 per cent.
Beer	17 per cent.
Brandy	2 per cent.
Wines	Practically none.
Mining supplies	32 per cent.
Railroad supplies (including rails)	55 per cent.
Lead	Practically none.
Resin, tar, and pitch	97 per cent.
Printing-paper	13 per cent.
Wall-paper	Practically none.
Wrapping-paper	45 per cent.
Writing-paper	10 per cent.
Ready-made clothing	10 per cent.
Cotton goods	1.7 per cent.
Hempen goods	Practically none.
Linens	None.
Thread	Practically none.
Woolens	Do.
Construction woods	75 per cent.

These and the following are percentages of gross weights: Considering the importation by classes, the United States furnishes 63 per cent. of the combustibles, 54 per cent. of the comestibles, 26 per cent. of the drugs, medicines, and chemicals, 9 per cent. of the glass and crockery ware, 23 per cent. of the iron and steel and their manufactures, 5 per cent. of the leather and its manufactures, 6 per cent. of the liquors, 38 per cent. of the materials and supplies, 4 per cent. of the metals, 1.8 per cent. of the textile fabrics, 42 per cent. of the tobacco, 66 per cent. of the wood and lumber.

I trust that these statistics may prove of value, and that I may be able to furnish those of 1889 before July 1 of next year.

1.—*Statement showing the total imports into the Republic of Colombia and the imports from the United States for the year ending December 31, 1888.*

Articles.	Total imports.	Imports from United States.
Animals:	*Kilograms.*	*Kilograms.*
Asses	2,000	
Hogs	535	132
Poultry	160	120
Unclassified	3,819	417
Total	6,514	669
Combustibles:		
Candles	204,789	17,437
Charcoal	137,000	
Coal	145,130	16,629
Coke	920	920
Fire-works	5,305	3,910
Fulminators	5,815	1,304
Kerosene-oil	888,611	879,145
Matches	139,968	48,186
Total	1,527,538	967,531
Comestibles:		
Apples	9,266	9,206
Barley	1,957	983
Biscuits	2,307	
Butter	12,625	8,073
Cheese	5,067	1,545
Coffee	1,103	
Condensed milk	1,663	1,345
Confectionery and dulces	20,858	1,971
Corn	60,400	4,000
Crackers	28,153	13,969
Cummin seed	22,011	1,702
Fish	20,795	4,971
Flour	1,699,523	1,586,450
Fruits	14,622	2,362
Garlic	3,817	2,803
Hams	12,420	3,102
Lard	107,387	102,593
Meal	19,356	16,571
Nuts	1,481	811
Olive-oil	38,831	4,308
Olives	5,261	183
Onions	23,269	19,158
Pickles	10,894	881
Potatoes	95,602	61,519
Preparations of meat	27,648	6,453
Raisins	8,940	2,031
Rice	1,302,304	113,340
Sago	290	275
Salted meat	24,486	2,565
Sardines	46,344	995
Spices and condiments	94,997	21,197
Sugar	305,299	253,134
Tea	4,211	1,544
Vermicelli	16,809	7,507
Vinegar	2,658	53
Unclassified	181,443	51,293
Total	4,234,097	2,308,893

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Drugs, medicines and chemicals:	*Kilograms.*	*Kilograms.*
Agua divina	2,952	....
Alcohol	3,463	2,117
Almond-oil	17,012	3,657
Alum	4,275	3,941
Ammonia	414	80
Anise	15,956	12,348
Bluing	8,881	31
Camphor	408	124
Castor-oil	1,993	998
Caustic soda	95,352	38,902
Chalk	1,599	836
Codliver-oil	879	840
Florida water	34,157	26,196
Glue	2,933	2,529
Gypsum	1,253	110
Kananga water	9,693	513
Leeches	624	75
Lime	12,051	....
Linseed	111	111
Linseed-oil	33,117	22,009
Lubricating oil	18,695	16,668
Niter	5,588	136
Oils (various)	1,166	965
Paint	59,840	27,674
Paraffine	629	....
Perfumery	19,366	2,146
Poison for hides	2,423	2,354
Powder	70,715	27,568
Salt	817,066	....
Saltpeter	22,643	6,598
Sarsaparilla	3,180	2,297
Soap	170,440	98,790
Sperm-oil	785	614
Starch	692	196
Sulphur	1,794	1,215
Turpentine	13,210	11,286
Varnish	11,898	10,890
Vaseline	163	163
White lead	5,464	1,357
Yellow ocher	2,649	2,061
Unclassified	358,575	153,376
Total	1,834,104	481,771
Glassware, crockery, etc.:		
Beads	692	....
Bottles	207,371	32,053
Crockery ware	541,268	4,183
Demijohns	123,040	....
Ink-stands	500	353
Lamps	18,876	8,142
Lamp chimneys	6,981	3,509
Lanterns	1,319	716
Mirrors	29,660	1,930
Porcelain ware	32,917	270
Spectacles	368	34
Window glass	79,757	7,999
Unclassified	113,531	43,726
Total	1,156,280	102,915

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Iron and steel:	*Kilograms.*	*Kilograms.*
Agricultural tools	22,763	8,186
Anchors	2,466	2,322
Anvils	685	355
Axes	27,038	21,931
Axles	4,302	2,189
Bedsteads (iron)	23,436	1,068
Bird-cages	416	243
Bits (bridle)	833	12
Bolts	1,769	9
Buckles	3,516	63
Chains	6,785	496
Copy-presses	5,232	2,721
Cutlery	25,712	1,017
Files	2,401	287
Fire-arms	6,261	888
Fish-hooks	1,172	....
Flat-irons	38,681	6,111
Forges	419	97
Fountains	2,466	147
Grates for ranges	3,999	....
Hardware	2,264	464
Hinges	9,634	1,989
Hoes	35,701	3,240
Hooks	1,599	1,045
Hydraulic jacks	225	225
Ice machines	2,158	2,082
Iron—		
In bars	45,772	5,893
Casks	116	....
Dishes and pans	95,055	1,324
Galvanized	34,680	5,910
Manufactured	437,712	42,640
Pipe	41,851	37,979
Plate	86,917	11,611
Roofing	136,835	3,892
Unmanufactured	903,819	51,090
Irrigators	11,171	11,171
Lightning-rods	311	155
Locks	12,072	2,042
Locomotives	40,683	34,618
Machetes	79,956	22,172
Machinery	81,572	30,592
Mills	74,945	60,057
Nails	342,875	34,699
Needles	4,015	31
Ovens	8,143	684
Pens	975	383
Picks	13,552	1,511
Plows	1,750	1,750
Printing-presses	2,830	1,984
Pumps	13,603	8,789
Rails (railroad)	52,243	....
Rivets	1,033	277
Safes	7,943	6,546
Saws	916	359
Scales	14,867	11,795
Scissors	4,912	52
Screws	6,170	386

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Iron and steel—Continued.	*Kilograms.*	*Kilograms.*
Sewing-machines	110,024	94,821
Shovels	30,837	5,518
Spades	651	160
Steam-boilers	50,379	43,569
Steel—		
In bars	17,272	1,417
Drills	8,168	417
Manufactured	11,035	2,464
In plates	17,685	21
Unmanufactured	23,139	1,218
Steelyards	3,161	2,115
Stills	1,014	....
Stoves	1,474	952
Tacks	21,871	22
Tools	27,779	4,046
Tools (carpenters')	20,931	11,739
Type-writers	50	50
Wire	6,895	2,752
Wire fence	268,034	180,269
Total	3,411,626	799,072
Leather, etc.:		
Boots and shoes	54,608	1,660
Boots, etc. (rubber)	1,606	478
Harnesses	1,441	1,011
Leather—		
Manufactured	12,303	638
Unmanufactured	45,244	1,703
Saddles	4,829	618
Total	120,031	6,108
Liquors:		
Beer	624,451	107,482
Brandy	235,859	5,646
Gin	2,871	....
Mineral water	1,758	....
Whisky	260	260
Wines	1,342,615	10,609
Unclassified	40,756	2,458
Total	2,248,570	126,455
Materials and supplies:		
Building	7,033	7,033
Canal	26,670	26,670
Dentists'	792	757
Druggists'	14,658	482
Electrical	3,999	827
Foundry	9,716	....
Jewelers'	446	....
Lithographers'	308	....
Mining	173,606	55,590
Office	8,555	2,290
Photographers'	1,190	598
Physicians'	475	....
Printers'	7,162	2,244
Railroad	141,822	91,881
Scientific	2,263	....
Shoe-makers'	1,140	268

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
	Kilograms.	*Kilograms.*
Materials and supplies—Continued.		
Steam-boat	81,226	....
Surgeons'	2,254	34
Teachers'	242	....
Telegraph	15,946	924
Telephone	206	66
Total	499,709	189,664
Metals:		
Bells	1,221	29
Brass (manufactured)	3,726	872
Brass-ware	4,225	272
Bronze	1,221	29
Candlesticks	4,539	596
Clocks and watches	4,953	3,300
Copper	260	....
Manufactured	18,479	168
Leaves	21,857	600
Utensils	10,447	1,350
Gold coin	3	....
Hooks and eyes	2,682	....
Jewelry	10,994	460
Lead	216,276	1,803
Pins	1,133	....
Printing types	3,853	2,220
Quicksilver	16,611	962
Silver—		
Bars	7,472	....
Coin	4,686	255
Ware	1,413	402
Solder	482	172
Spurs	200	....
Stirrups	2,438	130
Thimbles	625	....
Tin	4,668	191
In bars	1,895	....
In leaves	34,613	....
Tinware	2,191	60
Zinc	15,153	449
Total	398,316	14,320
Miscellaneous:		
Algarroba	62	....
Artificial flowers	1,417	34
Baskets	551	82
Bird seed	3,658	1,677
Blacking	7,174	5,476
Bricks and tiles	679,400	4,827
Brooms	680	575
Brushes	4,284	2,205
Buttons	21,913	3
Candelabra	2,965	51
Carriages and carts	16,368	9,540
Cars (railroad)	25,373	17,569
Cement	120,831	36,737
Colored earths	6,166	430
Combs	9,707	186
Cordage, rope, etc.	56,832	34,825

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Miscellaneous—Continued.	*Kilograms.*	*Kilograms.*
Corks	13,364	1,335
Fans	219	
Grindstones, etc	2,403	991
Hat-palm	12,040	
Hats	26,504	2,179
Hay	3,942	75
Hops	6,684	1,524
Hubs	110	
Ink	25,342	8,337
Juniper berries	2,010	1,983
Kitchen utensils	70,322	6,188
Lamp-black	643	318
Launch	2,264	
Marble	150,071	3,463
Munitions	99,486	4,410
Oakum	11,778	10,733
Ornaments	14,769	2,001
Plants and trees	1,470	
Printers' ink	1,267	1,140
Resin	94,886	94,265
Rubber hose	273	115
Samples	8,073	649
Sealing-wax	231	
Seeds	2,252	309
Slates and pencils	7,559	998
Sponges	184	184
Stones for filters	4,499	
Street sprinklers	13,861	13,861
Street sweepers	6,689	6,689
Tallow	17,087	10,635
Tar and pitch	150,577	145,126
Toys	11,548	545
Velocipedes	731	472
Wax	6,315	2,067
Wax tapers	5,869	
Wheelbarrows	16,027	14,461
Wheels	8,570	5,651
Unclassified	209,818	70,223
Total	1,967,118	525,138
Musical instruments:		
Accordeons	1,007	
Guitars	22	22
Harmonicas	1,219	
Music boxes	271	
Organs	6,362	
Pianos	21,751	2,878
Unclassified	2,308	82
Total	32,940	2,982
Paper:		
Advertisements	8,340	5,509
Albums	242	50
Blank books	26,735	3,372
Blotting-paper	713	414
Books	48,510	5,713
Cards (printed)	115	115

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Paper—Continued.	*Kilograms.*	*Kilograms.*
Cigarette paper	7,008	433
Envelopes	6,901	1,438
Labels	1,906	68
Maps	254	74
Music	1,236	5
Pasteboard	6,790	578
Periodicals	1,676	64
Playing-cards	4,746	
Printing-paper	152,708	20,090
Sand-paper	2,174	650
Wall-paper	75,224	587
Wrapping-paper	44,433	20,058
Writing-paper	156,185	17,021
Unclassified	1,076	
Total	546,972	76,82
Textile fabrics:		
Bags	190,676	30
Blankets	8,516	
Braid	4,603	
Canvas	30,627	[illegible],583
Carpets	23,532	459
Clothing	260,804	24,948
Cotton goods	4,281,435	72,403
Elastic	2,333	
Fringes	338	7
Handkerchiefs	106,661	76
Hammocks	713	31
Hempen goods	423,880	982
Laces	24,736	264
Linens	43,988	
Oil-cloth	2,772	2,064
Packing	24,154	2,178
Ribbons	5,218	9
Rubber cloths	31,176	2,292
Shawls	72,844	80
Silk goods	7,081	63
Tape	2,274	
Thread	140,251	672
Umbrellas	20,440	4
Wickings	21,667	879
Woolen goods	439,245	1,928
Yarns	13,736	52
Total	6,183,700	114,004
Tobacco:		
Cigarettes	67,886	428
Cigars	6,742	
Tobacco for cigarettes	17,708	
Tobacco	79.785	72,492
Total	172,121	72,920
Wood, lumber, etc.:		
Barrels and staves	6,934	784
Billiard tables	4,787	2,778
Boxes	34,204	20,934
Canes	679	28

1.—*Statement showing the total imports into the Republic of Colombia, etc.*—Continued.

Articles.	Total imports.	Imports from United States.
Wood, lumber, etc.—Continued.	*Kilograms.*	*Kilograms.*
Construction woods	511,571	385,796
Furniture	91,402	33,821
Ladders	140	140
Lasts	1,391	10
Lead-pencils	2,215	216
Masts	6,284	....
Moldings and frames	12,744	1,040
Oars	170	170
Ox-yokes	216	216
Pails	3,125	944
Pitch-pine	50,995	39,586
Trunks	1,671	911
Washing-machines	113	113
Total	728,441	487,487

RECAPITULATION.

Animals	6,514	669
Combustibles	1,527,538	967,531
Comestibles	4,234,097	2,308,893
Drugs, medicines, and chemicals	1,834,104	481,771
Glassware, crockery, etc	1,156,280	102,915
Iron and steel	3,411,626	799,072
Leather	120,031	6,108
Liquors	2,248,570	126,455
Materials and supplies	499,709	189,664
Metals	398,316	14,320
Miscellaneous	1,967,118	525,138
Musical instruments	32,940	2,982
Paper	546,972	76,822
Textile fabrics	6,183,700	114,004
Tobacco	172,121	72,920
Wood and lumber	728,441	487,487
Total	25,068,077	6,276,751
Imports of Cucuta (details not obtainable)	1,824,392	
Total imports	26,892,469	

2.—*Statement showing the imports into the Republic of Colombia from the several countries for the year ending December 31, 1888.*

Nations.	Packages.	Weight.	Value.
	Number.	*Kilograms.*	
England	269,463	9,283,796	$4,647,971
France	52,985	3,110,739	1,968,355
Germany	164,597	3,168,081	1,177,248
United States	141,555	6,276,751	1,044,046
Antilles	32,916	870,831	265,531
Ecuador	4,106	166,736	201,348
Spain	13,567	713,607	142,713
Colombia	33,888	407,738	101,845
Peru	860,975	957,668	19,636

2.—*Statement showing the imports into the Republic of Colombia from the several countries for the year ending December 31, 1888*—Continued.

Nations.	Packages.	Weight.	Value.
	Number.	*Kilograms.*	
Italy	499	23,985	$11,558
Belgium	473	34,523	6,337
Venezuela	592	49,095	3,747
Chili	53	3,982	3,191
Holland	9	420	110
Guatemala	2	125	86
Total	1,575,680	25,068,077	9,593,717
Imports into free trade ports of Colombia, exclusive of imports destined to Venezuela	49,076	1,824,392	687,800
Total	1,624,756	26,892,469	10,281,517

3.—*Statement showing comparative imports into the Republic of Colombia for the years 1887 and 1888.*

Nations.	1887.		1888.		Increase of imports in 1888 over 1887.	Increase, per cent., in 1888 over 1887.
	Imports.	Per cent.	Imports.	Per cent.		
England	$3,611,000	41.4	$4,647,000	45.2	$1,036,000	3.8
France	1,790,000	20.5	1,968,000	19.1	178,000	*1.4
United States	937,000	10.7	1,044,000	10.1	107,000	*0.6
Germany	843,000	9.6	1,177,000	11.4	334,000	1.8
Others	1,553,000	17.5	1,443,000	14	*110,000	*3.5

* Decrease.

JOHN T. ABBOTT,
Minister.

UNITED STATES CONSULATE,
Bogota, December 28, 1889.

STEAM-SHIPS IN CHILIAN WATERS.

REPORT BY MINISTER EGAN, OF SANTIAGO.

I have not yet received from the Chilian Government the particulars which I asked for in a dispatch dated the 2d of September last, in regard to the steam-ship lines which connect the ports of the Republic with those of the outside world. I have, however, obtained much information from other sources, and have now the honor to report as follows:

The number of steam-ship lines plying between the ports of Chili and foreign ports is seven, owning seventy-three ships, sailing under the Chilian, English, German, French, and Italian flags, with a gross carrying capacity of about 200,000 tons, having their head-quarters in Valparaiso, Liverpool, Greenock, Hamburg, Bordeaux, and Genoa. Most of those lines have good passenger accommodation; and between some of them there is a sharp competition in freights and passenger rates.

The regular freights from New York to Valparaiso, by way of Panama, are: Measurement goods, 85 cents per cubic foot; heavy goods, 1¾ cents per pound, or $34 to $35 per ton. Length of voyage, thirty to thirty-five days. These rates can, however, owing to present competition between Panama and Valparaiso, be somewhat modified by special agreement upon large shipments.

The same classes of goods are carried by steam, New York to Valparaiso, by way of Hamburg, at: Heavy goods, per ton, $21 to $22; measurement goods, per ton, $22 to $23. Length of voyage, fifty to sixty days.

By steamer, New York to Valparaiso, by way of Liverpool: Heavy goods, per ton, $22 to $23; measurement goods, per ton, $23 to $24. Length of voyage, forty-five to fifty days.

The freights from Europe by steamer from Liverpool, London, Glasgow, Bordeaux, Hamburg, or Havre are: Heavy goods, per ton, $5.50 to $7; measurement goods, per ton, $10 to $13. Some large lots from Liverpool and Glasgow have been carried recently at: Heavy goods, per ton, $5; measurement goods, $7.50. Length of voyage, thirty-five to forty days.

By sail, New York to Valparaiso, the freights are as follows: Heavy goods, per ton, $8.50 to $9.50; measurement goods, per ton, $9 to $10. Length of voyage, ninety to one hundred and thirty days.

By sail, Liverpool or Glasgow to Valparaiso: Heavy goods, $5 to $6.25 per ton; measurement goods, $5.50 to $7.

By sail, Hamburg to Valparaiso: Heavy goods, per ton, $4.50 to $5.50; measurement goods, per ton, $5 to $6.

All the foregoing rates are given in United States currency. The high freights from New York by way of Panama and the difficulties in the way of handling some classes of goods by that route are almost prohibitory. While goods can be procured from Europe in from thirty-five to forty-five days, the voyage from New York to Valparaiso by sailing vessel is from ninety to one hundred and thirty days; and the Chilian buyer of goods shipped under sail from New York will be presented with his bills of lading and draft, and be expected to pay, perhaps, sixty to ninety days before the receipt of the goods. On this account, as well as on account of the low steam freights from Europe, almost all the finer classes of foreign goods and the greater part of the heavy required in Chili are purchased in the markets of Europe. The imports from the United States consist chiefly of rough stuffs, of which about 80 per cent. come by sailing vessel, 10 per cent. via Panama, and 10 per cent. via Europe.

The Chilian line between the coast of Chili and Panama—La Compañia Sud Américana de Vapores—receives from the Chilian Government a subsidy of $125,000 gold per year, upon the conditions that their ships carry the mails; that they carry soldiers, certain Government officials, and Government stores at reduced rates; and that they may be employed by the Government as transports in time of war. This line, by its keen competition, has done much to induce shipments from the United States by way of Panama.

The Pacific Steam Navigation Company receives also from the Chilian Government a sum of $50,000 in gold per year for mail service.

The Chilian Government, while most friendly towards American machinery, is just now receiving for the Government railroads thirty-eight locomotives and about eight hundred cars manufactured in England upon American models, and I have been assured that this order was placed in England in preference to the United States solely on account of the cheaper freights and more rapid delivery.

The President and Government of Chili are most anxious to promote more extensive trade with the United States, and, with this object in view, are desirous to see established between the principal ports of the United States and those of Chili a direct, regular, and rapid steam-ship communication. I have assurances that Chili is prepared to contribute her full proportion of any reasonable subsidy that may be necessary to secure the establishment of such a steam-ship service.

I send a tabular statement giving the names of the several companies, the number of ships, number of voyages, tonnage, and other particulars:

Steam-ship lines connecting the ports of Chili with those of foreign countries.

Title of company.	Flag.	Head-quarters.	Plying between the coast of Chili and—	No. of ships.
Compañia Sud Américana de Vapores	Chilian	Valparaiso.	Panama	7
Pacific Steam Navigation Company	English	Liverpool	do	10
Do	do	do	Liverpool	12
Kosmos Line	German	Hamburg	Hamburg and Havre	14
Compagnie Maritime du Pacifique	French	Bordeaux	Liverpool, Havre, and Bordeaux	9
Golf Line	English	Greenock	Liverpool, Glasgow, and London	9
Navigazione Generale Italiana	Italian	Genoa	Genoa and Barcelona	3
Hamburg Pacific Line	German	Hamburg	Hamburg	9
Total				73

Title of company.	Voyages each way each year.	Length of voyage to Valparaiso.	Carrying capacity.	Passenger accommodation.	Financial aid from Chilian Government.
		Days.	*Tons.*		
Compañia Sud Américana de Vapores	26	21	2,400 to 2,600	150 to 175	$125,000
Pacific Steam Navigation Company	48	21 to 24	2,400 to 3,000	150 to 200	50,000
Do	24	35 to 40	3,000 to 6,000	Cargo only	
Kosmos Line	24	40 to 45	2,300 to 3,000	Good	
Compagnie Maritime du Pacifique	18	40 to 45	2,200 to 3,500	do	
Golf Line	18	35 to 50	2,200 to 2,600	do	
Navigazione Generale Italiana	6	50 to 60	2,500 to 3,000	Cargo only	
Hamburg Pacific Line	12	40 to 50	2,400 to 2,600	Chiefly cargo	

NOTE.—The total carrying capacity is about 200,000 tons.

PATRICK EGAN,
Minister.

UNITED STATES LEGATION,
Santiago, January 13, 1890.

STEAM-SHIP CONCESSIONS IN MEXICO.

REPORT BY CONSUL-GENERAL SUTTON, OF NUEVO LAREDO.

I have heretofore called attention to the advantages our shipping would gain if they were allowed to engage in the coasting trade in Mexican waters. I now beg to report that, by a recent concession, the Ward line has secured valuable privileges in this direction.

The company engages to carry free all Mexican postal matter to and from all ports at home or abroad, and to follow its schedule of sailings so far as is possible. If it is necessary to deviate from its regular ports, or is delayed, the company's agent at Vera Cruz must notify the Government by telegraph. Local agents must notify postmasters twelve hours in advance of the sailing of steamers. Besides the privileges usually given in such concessions the company obtains others:

(1) Its steamers are to be entered immediately on arrival, even if this be on Sundays or holidays.

(2) They may load and unload simultaneously.

(3) If the steamers have clean bills of health, they may land the mail-bags and manifests without waiting for the officials of the port, provided the latter are hindered by bad weather.

(4) The company may increase the number of trips, of steamers, and of ports of call, giving due notice thereof to the Government.

(5) It may do a coasting trade when no national vessel is engaged therein.

(6) It may also keep at ports of call lighters and steam-tugs, which shall enjoy the same privileges as the steamers of the line.

(7) In the matter of the coasting trade, it is provided that when, by obvious error, goods are landed at a prohibited port, they may be taken on again without penalty.

Numbers 1, 2, and 3 are often very important in avoiding expensive delays. Either of these may often save from twelve hours' to two days' detention, and this is, of course, a decided financial gain.

The fifth is very important, as, with a foot-hold once obtained on certain routes, it may make competition unprofitable, and thus hold their privilege and the traffic. The sixth and seventh are also important.

The Ward line has secured these privileges, but the present considerable and rapidly increasing commerce of Mexico will warrant others in asking similar concessions for certain portions of the coasts where better and more facilities are urgently needed.

The well-known liberality of the Government is an assurance that all needed encouragement will be given such enterprises.

WARNER P. SUTTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Nuevo Laredo, January 10, 1890.

GUATEMALAN-AMERICAN TRADE.

REPORT BY CONSUL-GENERAL HOSMER.

In reviewing the statistical record of Guatemalan trade with other parts of the commercial world one is struck with the vast disproportion between the amount it bears to European countries and that of the United States. To the mind of a citizen of our great Republic this seems strange and unaccountable. The contiguity of the Central American states to our own; the means for communication and transportation on both oceans; the frequent intermingling of the people, although of distinct race; the absorption of North American ideas, habits social and business; and the large number of our own citizens, either native or adopted, who have settled themselves for business purposes among the people of Central America—all combine to encourage a reasonable expectation of a free interchange of commercial commodities, and yet we find that of the importations of articles of merchandise from foreign countries into Guatemala the past year $700,000 only out of $4,300,000 of value came from the United States—hardly one-sixth of the whole amount.*

In the interests of our American trade I have canvassed this question closely during the past two years and a half, so far as my consular jurisdiction extends, and have made inquiries freely, both among natives and foreigners engaged in commercial pursuits in Guatemala.

I find that, outside of political reasons, which may not be properly embraced in this report, the preference for articles of American food and manufacture has pre-eminence. A good article from the United States is sought after, and a higher price paid therefor than for its competitor of the European market. This is the rule for many things, but does not always apply, on account of the cheap imitations of certain American goods which command a sale for that reason. Cheap goods will always attract attention, while good judgment does not, in every case, commend their purchase. It is the application of this latter principle that generally gives preference to articles of American manufacture or product in the market of Guatemala.

Many young men are sent here, especially from Germany, to open up trade with their principals at home. These young men are supplied with all means and facilities for that purpose. They have the benefit of the wisdom and ripe experience of old houses, which are connected by branches with all parts of the commercial world, and are thus guided and governed in the knowledge of the art of successful competition with their neighbors. By means of the branches of these same old-established houses at home connecting links are made in the chain of European connection by which articles of merchandise are introduced from other markets where goods are cheapest and where credits are longest.

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*According to our customs returns, our direct exports to Guatemala for the year ending June 30, 1889, amounted to $970,000, equal in Guatemalan money to $1,280,000, or more than one-fourth of the total imports of Guatemala as given by Consul-General Hosmer.

Great care, born of long experience in foreign trade, is taken to maintain these connections — care and prudence in supplying just what is needed, care in filling promptly and exactly just what is ordered, and especially great care in the putting up and packing all articles of merchandise for shipment.

In the matter of credits, too, our European rivals in trade show a discreet judgment worthy of imitation by our own merchants. They give long credits, running six, nine, and even twelve months, with a moderate interest charge on deferred payments. In doing this they afford their customers here time to sell their goods, realize the cash for payment of purchases, and the inducement for future increase of orders.

BAD PACKING.

But it is necessary to lay stress particularly upon carelessness on the part of dealers in wares and merchandise of the United States in the manner of packing their goods for transit to these Central American republics. The complaints on this score among merchants here who purchase American goods are universal and continual.

Conversing with a prominent dealer a few days ago, and questioning him as to the reasons that he did not have a greater supply in his line of fancy articles of merchandise, his reply was, that while he preferred them above all others, and was willing to pay a higher price for them than for the same character of goods of European manufacture, he could not afford to trust to the careless method of packing by which, in the experience of the past, he had lost so heavily upon his American importations.

An unjust effort is sometimes made to lay the charge of broken merchandise to the careless and rough handling in the landing and transit across the Isthmus of Panama of freight which is transported by the Pacific Mail line of steamers from New York. Such accusations are both untrue and unjust. On two occasions of delay at Colon I personally inspected and supervised the handling of freight from the steamers to the dock, and I was most favorably impressed with the great care exercised by the superintendent and his assistants in their method of loading and unloading goods. And the same with regard to unloading from the vessels, under the specially appointed and watchful charge of the first officers, at the various ports of discharge. Nothing could be more delicately and cautiously undertaken, with an honest sense of responsibility.

But at the same time I have observed with wonderment the skeleton form of coverings for packages intended for so long a route and necessarily frequent handlings. No wonder, then, that much breakage is the final result of goods so insecurely packed before reaching their points of destination. No wonder the merchant is aggrieved, and no wonder that it is impossible to fix the responsibility, unless it is brought home, as is justly due in almost every case, to the original shipper.

Large fortunes have been made in Guatemala within the past three years by coffee exportation. No less than $10,000,000 was the amount realized last year from this staple product alone. Hence there is much money, proportioned to the population, to spend in almost any thing and every thing fancy dictates. Hence, too, importations, in spite of enormous duties, are annually increasing.

If our people are anxious to promote trade relations with this and other Central American republics, it will be wise to heed the suggestions and intimations I have endeavored to convey in this report. They must cultivate the market by acquaintance with its needs through their own commercial travelers. They must be prepared to extend reasonably long credits. They must be most particular to furnish exactly the kind and quality of goods called for, according to the representations made in regard to them. And, finally, they must pack and prepare for a long and, in case of transit from New York, an intercepted route, where bulk is broken by rail across the isthmus, in the most secure and careful manner, with double the amount of precaution which would be exercised in shipments to the remotest portions of the United States.

JAMES R. HOSMER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Guatemala, December 16, 1889.

AMERICAN-BRAZILIAN TRADE.

REPORT BY CONSUL BURKE, OF BAHIA.

I had the honor, in former dispatches, to say something relative to the course to be pursued by our manufacturers in securing a larger part of the trade of Brazil than they now have.

The fact that I have, by the last two steamers from New York, received sixteen letters from sixteen different manufacturers in different parts of the country, making inquiries as to what course they should pursue in order to push their goods into Brazilian markets, and asking for all sorts of information as to what they should and what they should not do, leads me to write this dispatch to the Department, repeating some of the things already stated and recommending others.

First, I would say it is a loss both of time and of money for manufacturers to have printed in English a lot of circulars, notices, etc., of their business, and sent here for distribution among Brazilian and Portuguese merchants, when there is scarcely one in twenty-five of these merchants that can speak, read, or understand a word of English. And to distribute them among German and English houses would be quite useless.

German and English houses established in Brazil will give a preference to German and English manufacturers. They will buy in the United States only when they can buy cheaper than in Germany and England. The same thing may be said of Portuguese and Brazilian merchants. For years they have been buying of German, English, and French houses. Why, then, should they not continue to buy of them, unless our manufacturers can supply them with as good or a better article for the same or for a less price? Common sense declares there is no reason why, unless the boycotting of English goods continues for some time, which is not likely, and there should arise some cause for boycotting the German and the French also, which is altogether improbable.

Every man in trade, who has his regular customers, knows very well that as long as he treats his customers properly he has the inside track with them. He knows it is very difficult for other parties to oust him in his business relations with those customers, unless those other parties can do much better in the way of prices with them.

The manufacturers of the United States have neglected this Brazilian field for trade; England, France, and Germany, on the contrary, have cultivated and developed it for years. The result is, to-day they have this trade. Is it to be supposed that the English, French, or German houses established here will import goods from the United States unless they can buy those goods there much cheaper than in their own country?

Is it to be supposed that these houses will whisper to their Brazilian or Portuguese neighbor merchants to trade with the manufacturers of the United States?

Can the manufacturers of the United States place their goods, as a rule, in the store or shop of the Brazilian or Portuguese merchant for as low a price as the European manufacturer can? If they can, it is well. If they can not, then it remains for our manufacturers, if they want this trade, to show to these merchants that their manufactured products, though a little higher in price, are much superior in style, in finish, in durability, etc., and are, therefore, cheaper in the end than the European goods at a less price.

But it is, of course, a clear case; if our manufacturers would show these merchants this, they must have their goods on the Brazilian market. As stated at the outset, I deem it next to impossible for our manufacturers to secure the bulk of this Brazilian trade by sending notices and circulars and cuts of their business, or even by sending "commercial travelers," perhaps not able to speak the language, who are here to-day and away to-morrow, and whose order may or may not be sent as given.

Now, then, we come to this question: Are the manufacturers of the United States anxious to have this Brazilian trade? Do they want it? I do not mean the thirty or fifty, more or less, who have sent on their inquiries during the past year. Is it a trade that is wanted by the greatest number of our manufacturers? I know there is a great deal of talk now, and has been for some time past, with us about developing a South American trade; but what steps have our manufacturers taken to do this work? We must not expect to go into this Brazilian field with talk in the face of those who have been here for years tilling it, harvesting it, and now in almost undisputed possession of it. If our manufacturers are in earnest about this matter, if they really want this trade, if they are determined to have it, in my opinion they can have it if they will proceed to act. And the first step, it seems to me, to secure the trade is this: Let the manufacturers form an association for establishing houses in Bahia, Rio de Janeiro, and Pernambuco. In these houses let samples of their manufactured products be placed. Let the association put in charge of each house a thoroughly competent, energetic business man, with a good salary, who understands well the Portuguese language. This done, the Portuguese or Brazilian merchant, instead of looking at a circular, a cut, or a notice of the article, can see the article itself. Each house will also be an information bureau for its' own district. The manager, being on the spot, being in the business, being established here for the purpose of trade, can keep the general manager of the association in New York informed of the requirements, the needs, the whims, etc., of the trade, can keep him informed of the terms of credit to be given, who are good and who not, how to put up this article, how to pack that — in short, can keep him informed just what to do and how to do it, in order to capture the trade. For the purposes of trade an information bureau is a necessity. Now the manufacturers make an information bureau of the different consuls, some of whom, perhaps, have been in the country but a short time and have but little knowledge of the language; and, while the information they may obtain under many difficulties and much inconvenience may be good, as far as it goes, the scope is not as wide, the field is not as broad as it would be if the other course suggested were pursued, which, I may be permitted to repeat, is, in my judgment, the only successful course under the existing circumstances. If they do this, adopt this plan, as I view it, the bulk of the trade in due time is theirs. If not, they are likely to continue with past results unless they have some better plan in view.

What next? Steam-ships should be built that will be at ports, in general, on schedule time, and that will not occupy more than sixteen days between New York and this port, or eighteen or nineteen days between New York and Rio de Janeiro. There would then be in order a direct cable between New York and Brazil. Banks and other things required would follow. If these houses are established and the information bureau is taken out of the consulate and put into the American sample house, if the fast steam-ships are on the line and the cable laid, I feel certain that our export trade to Brazil would in the near future reach the value of our imports from Brazil to-day.*

DAVID N. BURKE,
Consul.

UNITED STATES CONSULATE,
Bahia, January 29, 1890.

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*Our imports from Brazil during the fiscal year 1889 amounted to $60,400,000.

STEAM-SHIPS IN THE WEST INDIES.

REPORT BY CONSUL TURNER, OF ST. THOMAS.

The following steam-ship lines touch at this port: United States and Brazil Mail Steam-ship Company, Hamburg-American Packet Company, Compagnie Generale Transatlantique, West India and Pacific Steam-ship Company, and an auxiliary branch of the Royal Mail Steam-ship Company.

AMERICAN.

The United States and Brazil Mail Steam-ship Company is an American line running from New York to Brazil, and has a steamer of about 2,000 tons, with a speed of about 11 knots an hour, outward and homeward every twenty-one days. On its outward voyage it touches at Newport News. The present fleet consists of three steamers, but in May two which are now being built will be added, these being 3,000 tons each, with a speed of 14 knots. This, I regret to say, is the only American line touching at any of the Leeward or Windward islands. It has no subsidy from the United States Government. The principal office of the line is in New York city.

GERMAN.

The Hamburg-American Packet Company is a German line, and has a steamer of about 1,300 tons, with a speed of 10 knots an hour, running from Hamburg via Havre to the West Indies every five days, and homeward at the same interval. The present West Indian fleet consists of steamers. This is the most extended line in the West Indies. It receives no subsidy from the German Government. The chief office is at Hamburg. The central West Indian station is located at this place. The steamers of this company began their new itinerary on the 2d instant, with the six steamers per month from Hamburg; and, to run in connection with steamers touching at Curaçoa, there will be a light draught steamer running between Maracaibo and Curaçoa. All the steamers outward touch here on their homeward voyage, except those to Vera Cruz, Tampico, and New Orleans, in which case they return to Hamburg from New Orleans direct.

FRENCH.

The Compagnie Generale Transatlantique is, of course, a French line, and has two distinct routes touching here, one from Havre to Hayti via Porto Rico and San Domingo, and the other from Marseilles to Colon via Guadeloupe, Martinique, Trinidad, and Venezuelan ports. There are two steamers outward and two homeward each month, one on each of the above-mentioned routes, their tonnage 1,800, and having a speed of 13 knots. The central station in the West Indies is Fort de France, Martinique, whence a subsidiary line goes to Cayenne. The exact amount of the subsidy which this company receives from the French Government I can not obtain from the agent here. It is, however, slightly more than $2,000,000. This includes all the lines belonging to that extensive company—its Mediterranean, Eastern, New York, as well as West Indian branches. The head-quarters are at St. Nazaire.

BRITISH.

The West India and Pacific Steam-ship company is a British line, and sends out a steamer of 1,700 tons, with a speed of 11 knots, once a month, running from Liverpool to Haytian ports, and sometimes to Colon, thence to New Orleans, where cargo is taken direct for Liverpool, touching at this port only on its outward voyage. Its chief office is at Liverpool.

Besides the above main or principal lines there is an auxiliary line of the Royal Mail Steam-ship Company. The main line runs from Southampton to Colon, touching at Barbadoes, Jacmel (Hayti), and Kingston (Jamaica). The subsidiary line, with steamer of about 1,200 tons with a speed of 10 knots, runs from Barbadoes to this port via St. Lucia, Martinique, Dominica, Guadeloupe, Montserrat, Antigua, Nevis, and St. Christopher. There is also one from Barbadoes to Demerara direct, and one to Trinidad via St. Vincent and Grenada. The subsidy received from the British Government for the entire West Indian service, including the auxiliary lines, is £85,000 ($413,610), which is £5,000 less than for the year ending December 31, 1889. The contract is for five years from January 1, 1890, and the company guaranties a 13-knot fortnightly service between England and Colon, with branch services as indicated. It is most probable that St. Lucia will be made the central West Indian station, instead of Barbadoes as heretofore.

The intercolonial or auxiliary steamers of this line generally arrive here on each alternate Saturday (the contract giving until Sunday), and leave for Barbadoes the following Thursday. The freight rate to London is $13.75 per ton, and to Liverpool $16.25 per ton.

The amount that each of the above British lines, which are not subsidized, gets for mail pay can not be ascertained from the agencies at this place.

MORTIMER A. TURNER,
Consul.

UNITED STATES CONSULATE,
St. Thomas, December 27, 1889.

MONEY IN CUBA.

REPORT BY CONSUL-GENERAL WILLIAMS, OF HAVANA.

With reference to my dispatch of the 23d of last July, reporting the resolutions taken by the retail grocers of this city to not receive the bills of the Spanish Bank of this island in payment of groceries sold at retail after the 1st of November, I now beg to inclose translations of the resolutions adopted by the same guild on the 22d ultimo affirming that purpose, as likewise those adopted on the 31st ultimo suspending the former, in consequence of the coercive and persuasive measures taken by the civil governor of the province of Havana and of a telegram addressed from Madrid by the minister of the colonies to the governor-general of the island upon the same subject.

RAMON O. WILLIAMS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Havana, January 4, 1890.

AGREEMENT OF THE RETAIL GROCERS.

[Inclosure in Consul-General Williams's report.—Translation.]

HAVANA, *December 22, 1889.*

(1) The Guild of Retail Grocers will sell their merchandise for gold from the 1st of next January.

(2) Spanish Bank bills will only be received at current quotations of gold.

(3) Spanish Bank bills being a conventional sign of value, the retail grocers will employ another sign, also a conventional sign of value, for the returning of change, such as the tin checks formerly in use, until the Government of His Majesty deigns to furnish fractional money to the island.

(4) The guild suspends the admission of half-dime bills from the 1st of next January.

(5) The Guild of Retail Grocers will endeavor to obtain by all the means in their power, both through their representatives before the insular Government and the Cortes of Spain, the funding of Spanish Bank bills by lottery as the only means of giving them value and of obtaining their redemption.

(6) The Guild of Retail Grocers agrees to establish a central importing grocery house, under the bases to be discussed and approved at a general meeting of the members.

(Signed,) NICOLAS MARIA SERRANO.

GUILD OF RETAIL GROCERS OF HAVANA,
OFFICE OF THE SECRETARY,
Havana, December 31, 1889.

The board of directors of this guild, in a session held at 2 o'clock of the afternoon of today, agreed, in consideration of the scarcity of fractional money for the operations of retail trade, and the prohibition by His Excellency the civil governor of the province of the use of tin checks instead, the only means at hand as a substitute; and, taking into consideration, also, the request of Mr. Rodriguez Batista (the civil governor of the province above mentioned), as likewise a telegram from the minister of the colonies to the governor-general, it is recommended to all the members of this guild to suspend the agreement taken at its general meeting held on the 22d instant until the budget of this island is discussed and approved.

(Signed,) JUAN COVA,
Secretary.

Telegram of the minister of the colonies referred to above:

"Question of paper money too important to be resolved violently, but is object of my greatest preference. I lament attitude of grocers as extremely prejudicial to their interests, and I entertain the hope they will modify it in the certainty that the problem will be resolved by the budget."

NITRATE TRADE OF CHILI.

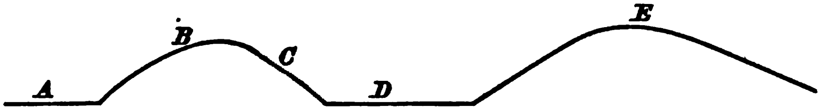
REPORT BY CONSUL-GENERAL WALKER, OF BOGOTA.

GEOGRAPHICAL POSITION OF THE NITRATE DEPOSITS.

The chief deposits of the crude nitrate of soda are found in the province of Tarapacá, formerly a part of Peru, but ceded to Chili in 1881 as a war indemnity on condition that after ten years it may be restored to Peru, provided a majority of the voting population of the province shall so elect, and upon the payment to Chili of $10,000,000. Upon such conditions it is not probable that this territory will ever revert to its former owner; for, in addition to the money difficulty, a serious one in the present disorganized condition of Peruvian finances, the large accessions of population to Tarapacá since its annexation to Chili have been mostly from that Republic, and these newcomers will naturally be averse to restoration.

The province of Antofagasta, acquired by Chili from Bolivia, and joining Tarapacá on the south, and having similar geological and climatic features, is also rich in nitrate deposits. A point a few miles south of Taltal, in this province, in latitude 25° 45′ S., may be considered the southern limit of the nitrate belt, its northern being in latitude 19° 12′ S.; its extreme north and south length being thus shown to be 260 geographical miles. Its average width is not more than 2½ miles. This narrow strip of nitrate lands stretches along the eastern slope of the coast range of barren, verdureless mountains which wall in the Pacific Ocean, from the northern limit of Peru, to the Straits of Magellan, upon which, for more than 2,000 miles, not a drop of rain ever falls, and upon which there is not a tree, shrub, or any living vegetation. Some of its peaks reach an altitude of 4,000 or 5,000 feet above the sea-level, but the usual height of the range is about 2,000. The average distance from the coast to the nitrate beds is about 14 miles, but many of them are not more than 10.

The following profile will give a better understanding of the situation of these deposits:



A, Pacific Ocean; *B*, coast range; *C*, location of nitrate deposits; *D*, valley of Tamagruel; *E*, beginning of the main cordillera of the Andes.

NITRATE DEVELOPMENT.

As early as 1813 some effort had been made to develop these nitrate deposits. During that year the Spaniards exported 22,732 quintals; but, the war of independence breaking out about that time, little was done to develop these mines of wealth until 1852. During that year an Englishman, George Smith, and José Sandes, a Spaniard, established small refining works at Iquique, under the name of the Tarapacá Nitrate Company. Encouraged by their success, numerous other similar establishments sprung up at different points along the coast, and by the year 1875 the nitrate trade had attained so important a development as to attract the attention of the Peruvian Government to it as a source of national revenue. In that year a law was passed providing for the acquisition of the nitrate deposits and refining establishments by the favorite method of "expropriation," and more than sixty different properties, belonging to companies and individuals, were taken possession of by the Peruvian authorities. Certificates were given in payment, to be redeemed through bills of exchange on London, drawn against shipments of nitrate.

The war with Chili broke out before any material portion of this indemnity was paid; but, as the owners of the expropriated property had been fully dispossessed, Chili, during the progress of the war, took possession of it as national Peruvian property. At the end of the war the outstanding certificates issued by Peru, principal and interest, were found to amount to £5,400,000 ($26,276,400). Chili, having fallen heir to the property, was morally bound to satisfy all mortgages and liens upon it, or to restore it to its original owners. After a few years of unsatisfactory experience in carrying on nitrate production for Government account, she wisely determined to adopt the latter alternative, and on June 11, 1881, the President of the Republic issued a decree ordering the restoration of the expropriated nitrate properties to their original owners. The conditions of this restoration were the delivery to the Chilian Government of a minimum of three-fourths of the certificates in amount given by Peru to the dispossessed owners, and a deposit of money, equal in amount to that of the deficient certificates, to be returned upon the delivery of the latter.

This wise and just measure gave an immediate and powerful impulse to nitrate production, and has proved a very advantageous arrangement for the Chilian treasury. It has not, however, been unattended with some disadvantages and dangers to the commercial prosperity of the Republic. The English companies, organized under the policy of restoration, are making strenuous efforts to secure a monopoly of the nitrate trade. Success in these efforts would signify diminished production to secure high prices, a large falling off of Government revenue from exports, and the ruin of small operators, who now contribute so largely to the aggregate of nitrate production and to the prosperity of the Republic. This is no idle fear, and doubtless the Chilian Government is alive to the danger.

The London nitrate companies, and the fabulous fortunes so suddenly acquired by their skillful manipulations, had their origin in this policy of restoration. Their history is not without interest.

During the short and unsatisfactory experiment made by Chili in carrying on nitrate production for Government account an Englishman was employed as nitrate inspector, who, by means of his official connection with the Government, ascertained, it is said, its intention in favor of the ex-owners of nitrate properties long before the public had any such knowledge. Forming a combination with another Englishman, whose name has since become widely known in connection with the nitrate trade, and with still another Englishman, the manager of a Valparaiso bank, the combination hastened to Lima, where the Peruvian certificates were mostly held, and succeeded in purchasing, it is said, for less than half their face value, certificates which carried with them the right of redemption of eight or ten of the most valuable of the nitrate properties in the whole province of Tarapacá. For instance, they acquired the property of the Ramierez Company, it is said, for £5,000, and afterwards sold it in London for £50,000. In this way, and at corresponding prices, they secured the "Peruana," the "Bien Retiro," the "Jaspampa," the "Virginia," and others—the very cream of the Iquique and Pisagua properties. Upon the success of these purchases the combination transferred their operations to London, and within the last six years have floated eight stock companies (limited), with an aggregate capital of £5,875,000 ($28,587,750), the shares of which, it is believed, are still largely held by themselves. The splendid showing of profits which they made enabled them to put the stock of these companies on the market at a high rate, notwithstanding the enormous figures at which they were capitalized; and these prices have been well maintained. I have no recent quotations at hand, but I am informed that in most, if not all, of these companies their shares still command a high premium.

In addition to the English companies above alluded to which have a substantial basis in valuable nitrate properties, several self-named nitrate companies have been organized in London, with enormous nominal capital, which are purely speculative, being based on neither Government concessions nor the ownership of nitrate or other property in Chili. To what extent their promoters have succeeded in abstracting sovereigns from the pockets of credulous investors I can not say.

The wise and liberal policy of the Chilian Government in encouraging small and independent establishments is an obstacle to the formation of a monopolistic "trust," or combination of the English companies, for the control of the nitrate trade.

At the time of my recent visit to Chili as special commissioner a large and imposing representation of these companies arrived at Santiago for the purpose, it was said, of obtaining such concessions and changes in nitrate regulations as would render them masters of the situation and give them a virtual monopoly of the nitrate trade. How far they succeeded in their designs I have no positive information, but I am convinced that the impolicy of strengthening the hands of the would-be monopolists was fully appreciated at Santiago. On the other hand, I am convinced that the investment of American capital in the nitrate business of Chili would be favorably regarded by both Government and people as tending to impose a wholesome obstacle and check to the monopolistic tendencies of the English companies, which may be considered *pro tanto* under one management.

THE NITRATE DEPOSITS.

The possibility of so strange a fact as the existence in open air of enormous deposits of a salt so deliquescent and easily destroyed by moisture as the nitrate of soda is partially accounted for by the strange meteorological fact that where they are found it never rains. This rainless region extends from the northern part of Peru, in about south latitude 4°, to about latitude 30° S., and inland from the shores of the Pacific to the main cordillera of the Andes, an average distance of about 90 miles. The country within these limits is a perfect desert, except along the borders of the few streams which, rising in the snow mountains, force their way into and across the desert to the Pacific, furnishing along their course water for irrigation, such as the river Rimac, which runs through the center of the city of Lima and irrigates the broad fruitful valley lying between that city and the sea-coast.

I have already explained that the nitrate beds are found on the eastern slope of the coast range, which, often precipitous on its western face, on its eastern slopes gently down to the valley of Tamagruel, which separates the coast range from the main cordillera of the Andes. This valley, with an average width of 10 miles, stretches from the hills of Caricoles, which connect the two Andean ranges, in latitude 22° 40′ S., to Aguas Blancas, in latitude 25° 45′, south of which point the country becomes very broken and the nitrate deposits disappear.

This valley is wholly devoid of all the characteristics which we usually associate with the word, such as groves of green trees, verdant pastures, running streams, etc. Instead, the eye wanders over a scene of treeless, verdureless, waterless desolation. It is true on the eastern side of the valley there is found an occasional weak spring, where feeble attempts at cultivation have been made, but with indifferent success, as the soil is so thoroughly impregnated with salts of various kinds as to render its profitable cultivation impossible, even with a sufficency of water for irrigation.

The point on the slope of the mountain where the deposits of caliche are found is some 500 or 600 feet higher than the valley, but it diminishes in quantity and richness as the valley is approached, and disappears entirely at the bottom.

An examination of the workings of these beds discloses the following conditions:

(1) That the surface to the depth of 8 or 10 inches is covered with a layer of fine loose sand.

(2) That underneath the sand is found a conglomerate of amorphous porphyry, feldspar, chloride of sodium, magnesia, gypsum, etc., cemented by the sulphate of lime into a hard, compact mass to a depth of 6 to 10 feet, called the "costra," or crust.

(3) That below this crust the caliche, or impure nitrate, is found, presenting to the view a variety of colors—yellowish-white, orange, bluish-gray, etc.

The nitrate deposit being reached, which, like the crust, is found cemented into a rock-like mass of from 4 to 6 feet deep, is quarried by blasting with a coarse-grained powder, of which as much as 150 pounds are sometimes used at a single blast. Neither dynamite nor nitro-glycerine are used, as it would shatter and pulverize the caliche so as to occasion a serious loss.

After being brought to the surface the caliche is carefully assorted by experts, called "particulares," broken into pieces double the size of an orange, and carted to the refinery establishment, situated on the Pampas or on the sea-coast, or carried to Iquique, Pisagua, Patillos, and Antofagasta, by rail, each of these places having connection by narrow-gauge railways with the nitrate deposits, and which, consequently, are rapidly becoming the chief centers of nitrate production and export. Of course, if water and fuel were obtainable near the deposits, it would be more economical to carry on the process of elaboration there; but, as these essentials can be had more conveniently at the sea-coast, it would seem to be cheaper to bring the caliche to the fuel and water. The fuel used is bituminous coal, brought by sea, mostly from the coal beds of southern Chili; while water is obtained chiefly by condensation, and, for domestic purposes, is brought in boats from Arica and other points on the northern sea-coast. Some attempts have been made to obtain water by sinking surface wells, but, as it never rains in these regions, success, of course, was impossible. No efforts, as far as I know, have been made to obtain artesian water, but the fact that the snow mountains are comparatively near seems to indicate that an abundant supply might be obtained at no great depth.

CAPACITY OF THE DEPOSITS.

Mr. George Smith, who did so much for nitrate development in Tarapacá, estimates that there is a sufficiency of crude nitrate in that province alone to yield 63,000,000 tons of the commercial article; while Mr. Billinghurst, in his interesting pamphlet entitled "Estudio sobre la geografia de Tarapacá," estimates the total capacity of the nitrate beds at 178,011,104 English tons. The mean of these two widely differing estimates would be 120,505,552 tons, an amount sufficient to supply the world's uses, at the present rate of consumption, for many centuries.

METHOD OF PURIFICATION.

The conversion of impure caliche into commercial nitrate of soda is effected by means of lixiviation, or leaching. For that purpose elaborate and expensive machinery is employed, a detailed description of which would be out of place in this report. It will suffice to say that the caliche is dissolved in water at a high temperature, in long tanks, from which the solution is carried in pipes to enormous shallow pans, and the water evaporated by artificial heat, the vapor being conveyed to a condenser, and the water thus distilled saved for further use.

PREPARATION OF IODINE.

It is found that in every 100 kilograms of impure nitrate there are 50 grams of iodine, and that in the crystallization of the nitrate the water used, called, technically, "aqua vieja," holds it in solution. In order to extract it this old water is drawn off into a separate tank and charged with sulphate of soda, with (according to Malhohére) the following chemical reaction: $IO^5\ N_2O+(N_2O\ 28\ O^2)=N_2I+3\ (N_2O+SO^8)+SO^8$, forming the iodide of sodium, precipitating the iodine, which, containing more or less impurities, is refined by sublimation and condensation.

EXPORT OF NITRATE AND IODINE.

The importance of the nitrate trade will be seen from the following figures: The export of nitrate of soda from the ports of Taltal, Antofagasta, Iquique, Pisagua, and Topilla (Iquique furnishing two-thirds of the whole) for the ten years ending the 31st of December, 1888, was 4,574,440 English tons, valued at $231,411,182, upon which export duties were collected, at the rate of $1 per 100 kilograms, to the amount of $87,470,622. During the same period the exports of iodine amounted to 1,588,074 kilograms, with a total value of $19,333,757, upon which the Government collected in export duties $1,172,576.

The export duties on nitrate for the year 1888, amounted to $17,447,882.12, and it is estimated by the minister of the treasury that for the current year (1889) the amount will exceed $19,000,000.

DESTINATION AND USES.

Of the large export of Chilian nitrate during the year 1888 Germany took 284,000, Holland 33,400, Belgium 84,800, France 156,500, and Great Britain 104,800 tons. The price in the English market varies from £9.10 to £10 per ton.

The chief use to which it is applied in European countries is as a fertilizer; in Germany and France largely in the cultivation of the sugar-beet. Very considerable quantities, however—as much as 30 per cent. of the whole, perhaps—are consumed in the manufacture of nitric acid, nitro-glycerine, dynamite, gunpowder, etc. In the preparation of the last-named article the soda nitrate is first converted into the nitrate of potash, on account of the latter being less absorbent of atmospheric moisture.

It will be observed that the United States does not figure as an importer of Chilian nitrate, but it might be to the advantage of our agriculturists and manufacturers of explosives to turn their attention to its use.

JOHN G. WALKER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Bogota, December 28, 1889.

No. 114——5.

RESOURCES OF PERU.

REPORT BY MINISTER HICKS, OF LIMA.

GEOGRAPHICAL FEATURES.

Now that public attention in the United States is directed in no small degree towards the countries of South America, and the subject of more intimate commercial relations with those countries is under discussion, I have endeavored to obtain some information in regard to the agricultural resources of Peru.

Five thousand miles south of the United States, Peru stretches along the western coast of South America for nearly 2,000 miles, from Ecuador on the north to Chili on the south. Although in the tropics, the prevailing winds from the south temper the equatorial heat, and the summer in Lima is never as warm as a summer in the United States. The Andes Mountains, assisted by the trade-winds from the Pacific, produce another remarkable condition, and that is the entire absence of rain. Between the Andes and the ocean, except in the extreme north and extreme south, rain never falls, and all agricultural operations are carried on by irrigation. The climate is generally very agreeable, but not always healthful. A continuous mild heat is not conducive to vigorous health, and much of the country is malarious, especially to Europeans and North Americans. It is a country where you never need an overcoat, an umbrella, or a rubber; where the weather is so uniformly pleasant that it is never talked about; where crops grow the year round.

ANCIENT PERU.

For centuries before the discovery of America Peru was inhabited by an intelligent and highly civilized race of Indians. Forty millions of people were governed by the Incas, who ruled with justice, moderation, and wisdom. Agriculture was carried on very successfully, and every foot of arable land was under cultivation. Even the sides of the Andes were terraced to secure more land, which was irrigated by water from the interior, and the remains of these wonderful "hanging gardens" can be seen to this day. An extensive system of public roads extended throughout the country, and public granaries and store-houses were established, where Government couriers and military expeditions could find refreshment. Gold and silver were not used as money, but found a place in decorations, and in jewelry and small tools. In 1530 the Spaniards under Pizarro conquered the country, and for three hundred years it was a province of Spain.

PRESENT POPULATION.

The present population of Peru is about 2,500,000, consisting of Indians and their descendants, who form almost two-thirds of the population, and the descendants of Europeans, principally the Spaniards, with about 40,000

Chinese. The language of the country is Spanish, although the Quicha, or native Indian tongue, prevails in the interior; and Catholicity is the established religion.

EFFECTS OF THE RECENT WAR.

Previous to the war with Chili, Peru derived a magnificent income from the sale of guano, found in the islands in the Pacific, and from the nitrate beds in the southern provinces. For instance, in 1871 there were shipped to Europe 393,726 tons of guano, which yielded a net profit of $13,928,205 to the Government. The fields of nitrate in the province of Tarapacá were beginning to yield almost as much when the war broke out with Chili.

The war with Chili came, and at its conclusion Peru was vanquished, her productive property was lost, and a national debt on her hands amounting to $250,000,000. An arrangement is now being made to fund this debt, and when this is done a new career of prosperity will undoubtedly open to Peru.

ARABLE LAND OF PERU.

Of the arable land in Peru, about three-quarters of it is between the Andes and the coast, while the remainder is in the interior. All along the coast, which is generally sandy and barren, there are numerous small rivers, which find their source in the snow-capped mountains and empty into the Pacific. It is in the valleys of these rivers that the principal part of the fertile land is to be found. Without the water for irrigating purposes, the land would be worthless; but, as it is, an abundant supply of water makes the land wonderfully productive.

PLOWING IN PERU.

The land is plowed in the following manner: From six to a dozen teams of oxen are put at work in a single field of 20 or 30 acres. The oxen are yoked, if I may use the expression, by tying a heavy beam across their foreheads. To this beam the plow is attached, all the force being applied by the head instead of the shoulders. The plow is a crooked stick or branch of a tree, the point faced with iron. The Hebrews, when they tilled the soil in the time of Moses, had a plow made in the same way. Intelligent Peruvians contend that they do not need to plow more than 2 or 3 inches deep, simply enough to loosen the soil, so as to enable the seed to take root. The water used in irrigating is said to be rich in plant food, further obviating the necessity of deep plowing. It may also be added that improved plows, suitable for this country, are now manufactured in Europe and the United States, but it goes without saying that they are very different from the plow used by an American farmer. They are light and small, having a close resemblance to the original crooked stick. Another peculiarity of every Peruvian plow is that it has only one handle. The driver carries in one hand a large goad, 12 or 15 feet in length, with which to touch up his team, and he manages the plow with the other hand.

IRRIGATION.

When the field is plowed, the next step is to make the irrigating ditches. These must connect with the "acequia" (canal) which brings the water from the river. These acequias traverse the field at a distance of 3 or 4 feet apart, and are 6 to 8 inches deep. They are so arranged that the whole field can be instantly flooded by turning on the water, and every hill of corn or potatoes or sugar-cane will be thoroughly soaked. Of course, the field must slope in the right direction, and, if nature has not so marked it, the level is reduced sufficiently before it is plowed.

WHEAT.

Wheat, of course, can not be grown here. The bread we eat is made from California or Chilian wheat. A peculiarity of the bread is that it is never made in the homes, but invariably bought at the shops, even in the villages.

CORN.

Corn grows indigenous. You can see fields of corn at any season of the year, and at almost every stage of growth. It is the staple food of all classes. The natives grind it between two stones and the meal is mixed in a batter, when it is fried in the shape of pancakes, which are called "tortillas." These are covered with a sauce made of lard and pepper, and rolled up in a size convenient to handle.

"CHICHA."

It is from corn that the natives make chicha, the national drink of Peru. Chicha is to Peru what beer is to Germany. The corn is pulverized between two stones, and the meal is put to soak in water, and the mass is afterwards boiled. The juice is then fermented, and the result is a sour liquid resembling, to a certain extent, weak cider. It has a cooling taste, and is slightly intoxicating. I have drank the pulque in Mexico and the chicha of Peru, and I must say that of the two chicha is the least harmful.

POTATOES.

The potato is a native of Peru. When the Spaniards first visited the west coast of South America they found this esculent cultivated by the natives, although it grew naturally in uncultivated places, wherever a sufficient degree of moisture enabled the plant to live. Tradition has it that it was on the top of Mt. San Lorenzo, the island in the harbor of Callao, where the Spaniards found the first potatoes, and from whence they took the seed to Europe. I have seen the plant as it grows wild on San Lorenzo, and I could hardly recognize it. It was about 6 inches high, with delicate little vines and a pretty blue blossom scarcely larger than a violet, while the potato on the roots below was no larger than a hazel-nut. From this insignificant plant has been evolved, by cultivation, the numerous family of the potato, which, within three hundred years, has made its way to every part of the civilized world, and now forms an important item in the world's bill of fare.

I watched, a few days since, a company of laborers at work digging potatoes in a field in the valley of the Rimac. A team of oxen plowed up the hills with a light plow, leaving the tubers exposed on the ground. Six Indian workmen picked up the potatoes and carried them to a pile in one corner of the field, while the overseer, a Spaniard, stood watching the work. The men who were picking up the potatoes had neither pail nor bag nor box in which carry them. Two of them put the potatoes in their hats and the others carried them in their hands, each one going from every part of the field to the pile in one corner, carrying five or six potatoes each trip.

COFFEE.

Coffee is grown successfully in the warmer portions of Peru, and the article produced always ranks high whenever it comes in competition with either the Brazilian or East Indian article. The amount produced is sufficient for home consumption, although but little is exported. The reason given for this is that the skilled labor required to prepare the berry for market is difficult to procure, and sufficient capital has not yet been invested in the business to make it remunerative on a large scale.

ALFALFA.

Clover is not grown here, but the tropical substitute, alfalfa, is raised in immense quantities. Alfalfa is the universal food for cattle, sheep, goats, horses, mules, and donkeys. It grows perennially, and stock are fed by turning them into one field after another.

OATS.

Oats are not raised here to any extent, except in the mountainous region, and there only in small quantities.

SUGAR AND SUGAR-CANE.

The great agricultural industry of Peru, and the one which she seems best adapted to, is the growth of the sugar-cane. Her climate and soil appear to be particularly suited to cane raising. The cuttings require two years to come to maturity, and then the plants in the latitude of Lima may be cropped for three years in succession without renewal. In the sugar country in the north of Peru the cane roots are cropped for six successive years without being renewed. Another great advantage is in the equable climate, which enables the farmer to leave his cane standing until he is ready to grind it. There is never any fear of frost, and if the cane is maturing too rapidly he has only to keep off the supply of water, when the progress of ripening is instantly suspended until it suits the convenience of the farmer to have it proceed. Labor, too, is cheap. From 40 to 50 cents per day is paid, the workmen boarding themselves. Formerly the laborers were coolies and slaves (they were brought here in great numbers from China); but the emancipation of slaves in 1874 put a stop to slave labor, and since then the coolies have been scattered throughout Peru and have engaged in all kinds of work.

The maximum annual product of sugar in Peru has been as high as 100,000 tons, but for several years past, owing to the poverty of the country, the scarcity of labor, and the low prices, the annual product exported has amounted to only 50,000 tons, worth about $4,000,000. In addition to this, about 20,000 tons are manufactured every year for home consumption. The sugar exported goes almost entirely to England, and is shipped in a partially granulated form. In the Liverpool market it brings 16 shillings per hundred, or about 4 cents per pound; but, as the freight and expenses of shipping cost 5 shillings per hundred, the producer does not realize quite 3 cents per pound for his sugar.

The principal sugar country is in the valleys of Lambayeque and Chicama, in the north of Peru, although there are several large plantations in the valley of the Rimac. The smaller ones average from 1,000 to 1,200 acres. Many of them are fitted up with narrow-gauge railroads, which haul the cane from the fields to the sugar-house, and they all have the improved machinery for making sugar.

From the juice of the cane immense quantities of rum are manufactured, and this fluid is used for fuel in small cooking-stoves, and is also used for illuminating purposes; but it is largely used by the natives in the mountainous regions as a beverage, and also by the Indians of Bolivia, where it is shipped in immense quantities. This liquor is made in various degrees of strength—from 25 to 60 per cent. of alcohol—and the native appetite is so intense that it is frequently drank without dilution. It is nothing more or less than crude alcohol, and the custom is to dilute it a little with water. As the cane is easily grown, the manufacture of rum is only limited by the demand. It is sold in Lima and the villages at 20 cents for a wine-bottleful, or about 13 cents a quart, so that the opportunities for this kind of intoxication are within the reach of the humblest citizen.

GRAPES AND WINE.

If Peru is the natural home of the sugar-cane, it is also the center of a very large grape-growing industry. As the cane needs warmth, its field is in the north, while that of the grape is naturally in the cooler regions of southern Peru.

Whole districts are devoted to grape culture, and probably if sufficient money was invested in the business the wines of Peru would soon rival in the markets of the world the far-famed products of France.

The annual product of wines is estimated at 400,000 barrels, valued at $4,000,000. From the Italia or white grape a very choice brandy is distilled, called italia, which commands a high price. The ordinary white grape of the country produces a similar but inferior liquor, which is known as pisco. Pisco is sold in all the drinking places, and is a more aristocratic liquor than either chicha or rum. Both italia and pisco contain a large percentage of alcohol.

The use of wines and brandy is almost universal in Peru. The foreigners resident here are nearly all Europeans, who are accustomed to the use of such liquors, and the natives, of course, have the habit by nature; so that the consumption of native liquor is very large.

The Government imposes a tax, not upon the manufacture, but upon the consumption of liquor, and this varies from 1 cent to 10 cents per liter, and a liter here is a little more than a quart. The total receipts from this tax are about $500,000 annually.

WOOL AND WOOL MANUFACTURES.

The wool crop is another important branch of industry. In spite of its tropical climate, Peru exports from $4,000,000 to $5,000,000 worth annually. Sheep raising is carried on mostly in the south and in the mountainous regions. Peru is the center of the wool region. Many haciendas have from 80,000 to 100,000 sheep. Shearing is done in June, although that is the season which compares with our fall. Still, the variation of the thermometer is but slight throughout the year.

The condition of manufacturing enterprises in Peru may be judged when I state that in the whole country there are but two woolen factories—one at Cuzco, the ancient Inca capital, and the second, a new one just established, in Lima. In the interior the natives manufacture cloth for their own use with rude looms of their own construction. They make a rough cloth from wool, and from the wool of the llama they make a peculiar cloth which is much used for shawls, ponchos, and comforters. Most of the wool of the country is shipped to England.

THE COTTON AND COTTON TREES.

Next to wool comes the production of cotton, which amounts to about $3,000.000 annually. The best grade is worth from 11 to 11½ pence in the English market, while the upland brings from 5 to 5½ pence. The cotton of Peru grows on a tree instead of the diminutive shrub which grows in the southern part of the United States. The tree commences bearing when it is two years old, and it continues to bear every year for forty or fifty years. In the warm regions of the north two crops are gathered every year. England takes the whole product.

There are three oil-mills in Peru which grind the cotton seed, and their entire product is used in this country in the manufacure of soap and olive-oil.

COCA.

The cultivation of coca is extensively carried on in the interior, but exact figures as to the amount and value of the crop are difficult to obtain. This is the plant which produces cocaine. It grows wild in the mountains of Peru and Bolivia, and is cultivated in districts elevated from 2,000 to 5,000 feet above the sea. It is valued for its stimulating narcotic properties, which it is said to possess in a greater degree than opium, tobacco, or any of the vegetable productions. The leaves are gathered and dried in the sun, and are chewed mixed with quicklime. The practice of coca chewing produces an intoxication similar to that of opium, and the appetite for it grows with equal rapidity. Prescott says that it is so invigorating that "with a small supply of it in his pouch and a handful of roasted maize the Peruvian Indian performs his wearisome journeys, day after day, without fatigue, or at least without complaint." The Indians, under its influence, are said to be able to work from twenty to thirty hours together without sleep. The journey from La Paz to Sucre, in Bolivia, a distance of 225 miles, is made by these Indians in three days, with scarcely any food, except the coca, which is carried in a small bag with a bottle of lime. The plant resembles the tea plant. There is a factory in Callao and one in Lima where it is manufactured into cocaine. It has been cultivated in Peru since the time of the Incas, and the principal depots for it are at Huánuco, Ayacucho, and Cuzco, in the interior.

PERUVIAN BARK.

Cinchona, or Peruvian bark, was first discovered in Peru, and for many years the world's supply came from here. The trees were ruthlessly destroyed, and it is many years since Peru produced any large quantity. The mountains of Bolivia continued for years to produce it, and Mollendo, in the south of Peru, is the port from which it was exported. Now, however, the principal source of supply is India, where the plant was introduced under the auspices of the British Government.

SALT DEPOSITS.

Closely allied to agriculture is the production of salt, and in this industry the natural advantages of Peru are, perhaps, unrivaled in the whole world. On the Pacific coast, 40 or 50 miles north of Callao, is the port of Huacho, where the salt deposits are sufficient to supply half the world. The Government last year sold the exclusive privilege of manufacturing salt at this point for $27,000. Owing to a peculiar formation of the soil, the sea-water on the shore percolates into the earth and is evaporated by the heat of the sun. Salt is thus formed in masses, almost entirely pure, and is cut in the form of blocks resembling ice. This natural and automatic manufacturing is constantly going on, and the supply is practically unlimited. This crude salt is generally used by the natives, and is shipped in immense quantities to Chili, where it sells for $1.60 per hundred. The table salt, sold in the groceries of Lima, however, is of English manufacture, as there is no refinery for the article in this country.

A similar deposit of salt is found at Sechura, in the north of Peru, where the privilege for manufacturing was sold last year for $30,000. Sechura supplies Ecuador, Colombia, and the northern part of South America.

SULPHUR DEPOSITS.

Immense deposits of sulphur are found at Tumbez in the north and Arequipa in the south. Sulphur is found so nearly pure that samples have analyzed at 99.8 per cent. of pure sulphur.

GYPSUM DEPOSITS.

Fields of gypsum exist in the vicinity of Sechura, but its development has not been attempted on a large scale.

PETROLEUM DEPOSITS.

Petroleum is found in the north, near Payta. Prescott speaks of the deposits of asphalt, and remains of ancient oil-wells and retorts have been found in that vicinity. An American gentleman has recently purchased a vast tract of land, 12 miles wide and 20 miles long, at Talara, near Payta, covering the site of these ancient oil-works and vast deposits of asphalt, which are called by the natives "pitch mines." This gentleman was one of the original operators in the oil regions of Pennsylvania, and he knows well the value of his purchase. He set to work sinking wells, and now has more than half a dozen spouting oil exactly like the famous wells in Pennsylvania. He is erecting a gigantic system of refineries, and in a few years he will have in operation the largest oil field in the world outside of Pennsylvania.[*]

COAL DEPOSITS.

In the neighborhood of Chimbote the coal deposits are said to be very large. Both anthracite and bituminous coal exist on the surface and in ridges above the surface, so that it can be mined with but little expense.

MISCELLANEOUS MINERALS.

The mineral wealth of this country is almost fabulous in magnitude, and includes, besides gold, silver, and coal, immense deposits of copper, iron, nickel, platinum, mercury, and many others.

Lack of capital and skilled labor has prevented the development of its agriculture, and a dependence upon foreign importations to the neglect of its own resources has caused several vital industries to remain undeveloped. Its immense mineral deposits have not been properly appreciated. The attention of its people is now being called to these points, and a noticeable impetus is being given to its various industries.

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[*] In a subsequent report to the Department (February 11, 1890), Minister Hicks says: "Referring to my No. 76 of January 21, 1890, in regard to the production of petroleum at Talara, near Payta, in northern Peru, I have to say that the refined kerosene manufactured at that point has appeared in large quantities in this city and Callao, and from its cheapness and excellence it seems likely to drive the American article entirely from these markets. A few days since one shipment of 20,000 boxes was reported as arrived at Callao, and the native article is now on sale at many places in that city and Lima. The experiment of burning crude petroleum in place of coal is being tried on the locomotives of the Oroya Railroad, and, if it proves successful, it will open a considerable market for the article among the railroads. They now use English coal, and by thus putting into use an article of home production it will give a stimulus to the manufacture as well as curtail the importation of an English staple."

Under date of March 12, Minister Hicks, of Lima, reports further that Mr. Sutherland Hutton, vice-president of the Mining and Supply Company, of Los Angeles, Cal., has been in Peru, and has just completed a contract with Mr. Herbert W. C. Tweddle, owner of the oil-works at Talara, in northern Peru, by which Mr. Tweddle is to ship 1,500,000 gallons of crude oil every month during the life of the contract, which is to continue five years. This is probably but the beginning of this business, and it would indicate a condition of affairs of considerable interest to the oil-producing industry in the United States.

JOHN HICKS,
Minister.

UNITED STATES LEGATION,
Lima, January 21, 1890.

RAILROADS IN PERU.

REPORT BY CONSUL BRENT, OF CALLAO.

I beg to inclose the copy and translation of a decree issued by the Government of Peru on the 28th instant in connection with a most important railway from the city of Puno, on Lake Titicaca, 11,769 feet above the level of the sea and the Desaguadero, an outlet of the said lake, proceeding towards La Paz, the capital city of Bolivia.

H. M. BRENT,
Consul.

UNITED STATES CONSULATE,
Callao, January 27, 1890.

DECREE—RAILWAY FROM PUNO TO THE DESAGUADERO.

[Inclosure in Consul Brent's report.—Translation.]

LIMA, *January 28, 1890.*

Having examined the foregoing with solicitude, and having in consideration—

(1) That by the article 1 of the law enacted on the 18th of last September the executive is empowered to contract, with or without calling for bids, the construction of a railway, which, leaving the city of Puno, shall reach the Desaguadero so that it may be in connection with the projected railway between the Desaguadero and La Paz and Oruro (both cities of Bolivia—the first the capital).

(2) That the committee of bondholders, or the company representing it, to hold the contract of construction of the railways in the southern departments of Peru, according to the contract entered upon with the Government thereof, finds itself in favorable condition to carry out the said railway mentioned in the said law—

Therefore, the following is resolved upon:

(1) The committee of the bondholders, represented by Earl Donoughmore, or the company which assumes the rights and obligations laid down in the principal contract of the 11th instant, shall commence the work within the term of three years from date.

(2) The railway shall be completed to be delivered and opened to public traffic within the period of five years, to be reckoned from the day on which the said line is commenced.

(3) If the railway should not be completed and open to public traffic within the period of five years, on this account the concession now granted to the committee shall be considered as lapsed.

(4) Agreeably to the terms of article 2 of the law giving authority, the work shall be considered as of public usefulness for those expropriations that may be required.

(5) The gauge of the railway shall be the most suitable, according to the judgment of the parties undertaking it, it being understood that the gauge of the railway projected from the Desaguadero to La Paz and Oruro shall be the same as that on the line from Arequipa to Puno, since that which is now projected will be connected with the two said railways.

(6) A grant is made to the committee representing its rights of the property of the lands belonging to the State which may be necessary for the nation's road-bed and other accessories.

(7) It is granted at the same time to the committee, or the company representing it, the right to introduce, free of duty, either fiscal or municipal, the rails, sleepers, and rolling stock necessary for the construction of the lines.

(8) The committee undertaking the work shall enjoy the full and perpetual right to the railway extending from Puno to the Desaguadero constructed by said committee.

Register and transfer to the department of finance, so that the respective legal documents of the contract may be drawn up.

[Sign-manual of His Excellency.]

(Signed,) Solar,
Minister of the Interior.

THE IRON MINES OF SANTIAGO DE CUBA.

REPORT BY CONSUL REIMER.

The existence of minerals of all descriptions and kinds in the province of Santiago de Cuba has been known since the conquest of the island by the Spaniards at the beginning of the sixteenth century, but they appear to have only paid attention to the gold and copper, for working which they first employed the aboriginal Indians; and, finally, as these could not stand the hard work and were gradually dying out, they had recourse to the negro, and hence the origin of the Cuban slave-trade. On the conquest of Peru the news of the immense mineral riches there seems to have attracted the Spaniards from this place, and little by little mines here were abandoned without really having been worked with any degree of scientific knowledge or care.

Without further tracing the general history of mines and mining in this province, it is well to give a short review of the progress made, the concessions granted by the Spanish Government, the laws promulgated, and the present condition of the iron mines of this province, which form the subject of this report.

To José Ruiz de Leon belongs the honor of having, on January 26, 1881, reported and claimed ("denunciado") the first iron mines in this province. These mines, situated in the district of Ramon de las Jaguas and consisting of four squares of 1,000 meters each, were called "Las Lolas," and will be referred to later. The term "denunciar," or denounce, literally translated from the Spanish, means the act of legally establishing ownership of a mine, and is brought about under present law in the following manner:

The person discovering a mine, no matter on what land it is, whether on Government (realengo) or private property, submits to the provincial government a plan of the probable extension of the mine. The Government then, if all is in conformity with details and fulfilling all the requirements of the law, grants a title to the mine. This title, however, does not take the surface property away from the owner. Later on, when the mines are to be worked, if no terms can be agreed upon between the owners of the land and the owners of the mines, the Government appraises the land, and at this appraised value the owner of the surface land is obliged to sell to the owner of the mine. (*Vide* my report on manganese mines, page 10, N. S., No. 1, January, 1889, CONSULAR REPORTS.)

It seems that the impetus needed to convince the people here of the riches that were and are stored in their mountains was given by this act, and any number of mines were that year denounced. Mr. Ruiz de Leon entered into negotiations on April 12, 1881, with capitalists in the United States and gave these capitalists refusal on the mines, agreeing to sell them for $500,000, with a cash guaranty of $25,000 down. A mining expert was sent here, and, negotiations in that quarter falling through, Mr. T. H. Graham, M. E., appeared upon the scene. This scheme also failed, and instead a syndicate of Pennsylvania capitalists bought, through Mr. Graham, the Juragua group of seventeen mines.

The aspirations and plans of mine owners being by this transaction assured of ultimate success in selling their iron mines to American capitalists, it became necessary to cause the mining law then in force to be amended, and, it might almost be said, reconstructed. The law of July 6, 1859, reformed by the law of March 4, 1868, did not offer sufficient advantages to purchasers of mines here to cause them to invest capital.

This state of affairs being represented to the Spanish Cortes by parties strong and influential enough to secure legislation, the law of April 17, 1883, was passed, which law secured to the iron-mining industry the same privileges, and possibly greater ones, than those enjoyed in Spain proper. Believing it of utmost importance to people seeking investments in iron mines here to have an intimate knowledge of this law, it is well to herewith include a brief sketch.

Article 1 of this law states that all grants and concessions granted by the law of October 13 (articles 77, 78, 79, and 80), and referring to mines in the island of Cuba, are extended for twenty years in the following manner: Such concessions and grants are exempt from the ground tax. All minerals and metals may be exported from this island free of duty. All stone-coal imported into mining districts through custom-house ports is exempt from duty, provided such coal is used for mining or metallurgic purposes and such purposes can be proven. Iron ore and iron mines are exempt from the taxation of 3 per cent. on gross product heretofore imposed. Mining and metallurgic industries pay no taxes or duties whatever. Mining products of this island are also exempt from taxes of transportation, coastwise or other, but always are subject to the rules imposed by the custom-house.

Article 2 provides that the importation free of duty is conceded on material and machinery used in mining and metallurgic industries, and also on such material which is used for the transportation of such products and their conveyance on shipboard; this concession to hold good for five years from date of the publication of this law, and can not be prorogued. (By a subsequent law the date and length of this concession was prorogued.)

According to article 3, vessels entering in ballast and leaving the ports of this island with iron ore pay navigation and port charges on the basis of 5 cents per ton.

Each ton imported of mining material or machinery, or of material used for metallurgical industries, pays $1.30 (Spanish) port charges. All other cargo on such vessels pays according to the regular customs tariff. To enjoy this privilege, vessels must prove and justify their entry or departure with mining material or machinery, or ore or mineral.

The tonnage of foreign vessels is fixed according to their register; Spanish vessels pay according to their documents. This, of course, does not include foreign vessels of such nations as are equalized by treaty with the Spanish as regards tonnage dues, and have, under royal order of June 4, 1868, which gives to Spanish vessels these privileges, the same rights.

While the law of October 13, 1863, is declared to be still in force, the law above quoted changes it so materially in its vital points that it is unnecessary to refer to it in this report.

On April 27, 1885, the General Government of this island published the charter and concession granted to the Juragua Iron Company (limited) through the ultramarine minister of Spain, at Madrid. This concession allowed the Juragua Iron Company (limited), of Philadelphia, Pa., U. S. A., to construct a narrow-gauge railroad from their mines to Santiago de Cuba for the sole use of their mines and mineral, this railroad to pay neither taxes nor charges for the term of ninety-nine years. The free entry of material for constructing and maintaining the railroad, rolling stock, and all and every thing needed for the use of the road to transport mineral is included in this grant. Of the minor and trivial details imposed by the Government in consideration of this grant it is unnecessary to speak, as they are such as can be easily complied with by any company establishing itself here on the same basis as the Juragua Iron Company, and grounding its demand for a charter from the Spanish Government on the grants given to the above-mentioned company by such Government.

This grant has caused various mine owners to demand from the Spanish Government like privileges, and, convinced of the willingness of such Government to further the mining industry, other grants for mining, railroads, and the establishing of entry and clearance ports in the vicinity of other mines have been asked for and conceded, thus making the preliminary work—which is always the most difficult for companies and capitalists desiring to work mines—easy in the extreme, and entirely free from the long and discouraging delays in obtaining concessions which characterizes such work here.

These facts, combined with the most favorable laws, above quoted, prove sufficiently the desire of the Spanish Government to further the mining industries, and insures its success, and should induce parties seeking investments in iron mines to consider and examine the wonderful mineral wealth of this province. That such wealth exists has been amply proven by the work of the Juragua Iron Company here. The ore is, it might be said, not mined, but simply blasted, and, with picks and shovels, removed by cutting into the hill-sides. Of the work of this company, their exports and benefits they have given this province, later on reference will be made.

It would require the pen of a scientist to describe the geological formation of the ore deposits in this province; suffice to say opinions differ as to the formation and strata. The southern coast of this province, from Cape Maisi to Cape Cruz, is mountainous in the extreme, and is traversed parallel with the coast-line by a high mountain ridge, called the Sierra Maestra. This range is partially broken by the bay of Guantanamo, some 50 miles to the eastward of here, and this bay of Santiago de Cuba. In the foot-hills between the bay of Guantanamo and Santiago de Cuba, which foot-hills run from the general mountain range down to the coast, nearly all the mineral so far discovered has been found. This, however, by no means proves that these foot-hills are the only ones containing iron ore, as ore has been found to the westward of this harbor, and lately immense deposits have been discovered directly on the coast, within a few hundred feet of an excellent harbor on the north coast of this province, between Baracoa and Nipe Bay.

Some weeks since concessions were granted for the construction of a mining railway from Baconao to Santiago de Cuba. This railway, on which preliminary surveys have already been made by a Spanish Government engineer, would benefit the whole system of mines so far reported and claimed along the south coast of this province, and offers no serious obstacles as regards the topographical formation of the land. Branches running to the main line, and constructed in the numerous small valleys that allow the mountain streams to wend their way to the coast, can easily connect all the mines included in the system with the bay of Santiago de Cuba, and thus facilitate the transportation of iron ore. This concession (the main line would be some 40 kilometers long) has been granted to José Bueno y Blanco, esq., who is at the head of the syndicate that are waiting for American capital to go ahead with its work.

Another plan, extensively referred to by T. H. Graham, esq., M. E., in his report on group No. 5 of the mines, is to construct a short mining railway, some 4 to 10 miles long, to the lagoon of Baconao, and then connect the lagoon with the sea by a canal, thus allowing sea-going vessels to load ore in the basin thus formed. This scheme would also benefit group 7.

The Lola group of mines (in No. 7) having been under negotiation, and their sale being almost assured, a Cleveland, Ohio, capitalist brought down here some of our best engineering talent, and it was agreed to construct an artificial port in the bay of Daiqueri, some 2 to 3 miles from the road. The plan has reached its completion up to the point that during his recent visit to this province the captain-general of this island inaugurated the port in the writer's presence.

Another plan, benefiting group 6, is to construct a port at Juragua, which would, no doubt, involve great expense.

The Spanish Government has granted the concession of establishing a custom-house for clearance and entrance of vessels at all these three ports, Baconao, Lola Daiqueri, and Juragua.

DESCRIPTION OF THE GROUPS.

First group.—Nima Nima, 359 hectares.

Second group.—Cuero, 312 hectares.

These two groups, comprising 671 hectares (1 hectare = 2.471 acres), are to the westward of this bay of Santiago de Cuba, and have been little known and offered to capitalists in the United States. Suffice to say, unless the ore finds an outlet at an artificially constructed port at Aceredero it must all be brought to the western shore of this bay for shipment. The construction of a railroad along the coast-line offers no serious topographical difficulties.

Group No. 3.—La Dorotea, 240 hectares. Of the quality and kind of the mineral in these mines I have not been able to collect any information. Should such ore be of the same kind and quality as that of the Juragua mines, their close proximity to this port renders them a highly desirable investment. The same may be said of group No. 4, Sevilla and Ocaña, 510 hectares.

Group No. 5.—Arroyo de la Plata. In Mr. Graham's report above referred to, that gentleman speaks very highly of these mines, ranking them among the foremost of the world, and estimating the amount of ore actually in sight requiring no development whatever at 500,000 tons. The amount of ore below the surface, that gentleman further states, is absolutely beyond conjecture. In his estimate he only includes one of the six properties included in this group.

Group No. 6.—Juragua and Victoriana, 1,497 hectares. This group has given substantial proof of the wonderful riches of the Cuban ore range, as it includes the mines worked by the Juragua Iron Company (limited), who export their mineral to Philadelphia, Baltimore, and Perth Amboy. It is well to here give the standard analysis of the ore, which analysis may be taken as a standard of the ore in the whole range:

Constituents.	Per cent.	Constituents.	Per cent.
Silica	1.90	Phosphoric acid	0.06
Carbonic acid	0.98	Titanic acid	......
Peroxide of iron	95.65	Potash	......
Alumina	0.55	Organic matter	......
Lime	0.67	Total	100.53
Magnesia	0.15		
Manganese oxide	0.50	Metallic iron	66.95
Sulphur	0.07		

This company owns 780 hectares of mines, which they bought for $300,000 (Spanish gold), with the agreement of paying a royalty of 5 cents per ton of 2,240 pounds exported, and has constructed, under concessions and laws before quoted, a mining railway 17 miles long, main line; branches and sidings, 24 miles. They at present own a rolling stock of 1,000 ore cars, 285 small side-dump cars, 16 flat cars, 2 passenger cars, 8 large and 6 small locomotives, and are working five mines in thirty-two workings, and have up to date exported—

	Tons.
1884 (part of)	23,777
1885	80,090
1886	112,780
1887	92,910
1888	204,225
1889 (to date)	218,556
Total	732,338

At present employing some twelve hundred men in the mines and two hundred on the railroad, they are of immense advantage to this province, and have, it might be said, rejuvenated this part of the province, and have given an immense impetus to trade and navigation.

The ore, all shipped in steamers under the British flag, is conveyed by rail to the company's dock at La Cruz, where it is dumped into the steamers from the cars. The writer is informed that the company contemplate constructing another track, and thus can increase the output of ore immensely. The only difficulty with them lies in the fact that while sufficient ore is always ready and need only to be blasted and taken from the mountain-sides, the transporting facilities are not sufficient to cope with the enormous demand for this wonderfully rich ore.

The railroad was inaugurated on July 17, 1884, under imposing ceremonies, having been finished on June 29 of the same year. The first shipment of ore was made to Perth Amboy on August 7, 1889.

The stockholders of this company are largely composed of strong capitalists in Pennsylvania, and the ore is shipped for use of the Pennsylvania Iron Company, of Steelton, Pa., and the Bethlehem Iron Company, of Bethlehem, Pa.

It is estimated that $2,500,000 were spent in this enterprise; which enterprise, for its able management, strong financial position, and willingness to comply with the laws of the country, is a credit to American enterprise.

Groups 7 and 8.—Owing to their close proximity to the Juragua properties, these groups do not need any especial mention. The ore seen on the surface of these groups is of almost fabulous quantity, easily reached, and offers an excellent investment to capitalists.

Group No. 9.—Moa, 463 hectares. These mines, not included in the southern ore belt of this province, but situated on the north coast, between Mangle Point and Sagua de Tanamo, deserve special mention in this report, not alone for their wonderfully advantageous position, being on the shores of a magnificent harbor, but also for the fact that their discovery, made a short time ago, is conclusive evidence of the existence of iron ore on the north coast. The ore, so far as can be ascertained, here is wonderfully free from phosphorus and sulphur, is easily mined, and the fact that the port, whose shores are in many places iron ore, is one day's sail nearer our shores deserves a careful and special study. The writer has been so impressed with the feasibility of working these mines that he proposes, with the Department's permission, to visit them and make a careful study of them.

After perusing this report the question is naturally asked: How is it that with mines richer than those of Spain, more easily and cheaply reached than our own on Lake Superior, no more American capital is invested here? This question is easily answered by the fact that our public have been in almost absolute ignorance of this mineral wealth, and the owners of the mines, believing us all in command of untold riches, have asked fabulous and ridiculous prices for their mines. Those American capitalists that have come here have been obliged to leave without buying mines, on account of the stubbornness of the mine owners, who have refused to sell at any thing like reasonable figures. This, however, is to-day to a great extent changed, as people here are convinced that no matter how rich their mines, unless they realize on them they are worth nothing, and they are to-day willing and glad to listen to any reasonable offers.

In closing it is well to refer to a question of great moment and importance. The population of this province, in number of its working people, inadequate even now to supply the increasing demand for laborers in sugar estates and mines, is unused and often unwilling to perform hard labor such as mining. Considering this question a most vital one, the writer had, some time since, a conversation with Captain-General Salamanca, when that gentleman was here. That authority is fully alive to this critical situation, and has already taken steps to encourage emigration from Spain, with excellent results. Besides this, the soldiers on this island can be employed as laborers in the mines, and are so employed with the Spanish Government's consent. The labor question, of great moment to sugar planters, need offer no obstacles to the working of mines by American capitalists.

The writer hopes that this hurried review of iron mines in the province of Santiago de Cuba will serve to draw the attention of our public to this wonderful country.

OTTO E. REIMER,
Consul.

UNITED STATES CONSULATE,
Santiago de Cuba, November 21, 1889.

AMERICAN MINING CAPITALISTS AT SANTIAGO DE CUBA.

REPORT BY CONSUL REIMER.

At the instance of Thomas H. Graham, esq., I had the honor of presenting, on February 21, to their excellencies the civil and military governors of this province a committee composed of Edmund D. Smith, Clarence M. Clark, David H. Thomas, E. V. D'Invilliers, and S. H. Chauvenet, which committee was accompanied by the following mining, railroad, and engineering experts: W. J. Rattle, Capt. E. D. Greene, Edward Gaynor, John

Gaynor, and John Cooper. This committee represented an American syndicate, and visited Santiago de Cuba for the purpose of investigating and making preliminary examinations with the view of establishing an iron-mining enterprise in the vicinity of this city.

The committee represented a large and important syndicate of American capitalists, as before stated, and, upon being by me introduced to His Excellency Don Ramon Barrios, civil governor, and His Excellency Brig. Gen. Don Andre Gonzales Muñoz, military governor, received from both authorities the official assurance that the National Government of Spain, at Madrid, had instructed them to do all in their power, by granting special concessions and in every other way possible, to encourage the full development and operation of mining enterprises in the island of Cuba, and that in furtherance of these instructions their excellencies further assured the committee of their hearty support and co-operation.

This is another and marked instance of the friendly policy adopted and pursued by the Spanish Government with the view of encouraging the establishment and protecting American enterprises in this consular district.

Deeming this a matter of great importance, I believe it advisable to bring it to the knowledge of the Department.

OTTO E. REIMER,
Consul.

UNITED STATES CONSULATE,
Santiago de Cuba, February 28, 1890.

THE JAMAICA EXHIBITION OF 1891.

BRITISH LEGATION,
Washington, January 15, 1890.

SIR: I have the honor, by direction of the Marquis of Salisbury, to transmit herewith copies of regulations which have been framed in regard to an exhibition to be held in Jamaica in the year 1891; and I am instructed to request, in communicating these papers, that they may be brought to the notice of persons in the United States interested in such an undertaking.

JULIAN PAUNCEFOTE.

The Hon. JAMES G. BLAINE,
Secretary of State.

[Inclosure 1.]

JAMAICA INDUSTRIAL AND MANUFACTURING EXHIBITION, TO BE OPENED IN JAMAICA, JANUARY, 1891.

Committee in United Kingdom: Honorary president, the Right Hon. the Lord Knutsford, G. C. M. G., etc.; chairman, C. Washington Eves, esq., F. R. G. S.; committee, His Grace the Duke of St. Albans; Sir Henry Barkly, G. C. M. G., K. C. B.; Sir Frederick Young, K. C. M. G.; Sir Edward Newton, K. C. M. G.; Sir J. R. Somers Vine, F. S. S.; Maj. Gen. J. R. Mann, C. M. G.; Sir John Simon; Neville Lubbock, esq.; Alexander Crum Ewing, esq.; Richard M. Harvey, esq., F. R. G. S.; D. Morris, esq., M. A., F. L. S.; Maxwell Hall, esq., M. A., F. R. G. S.; Dr. D. Palmer Ross, F. R. C. S. E.; J. Kenyon Hawthorn, esq.; W. C. C. Park, esq.; Samuel Shortridge, esq.; Wm. Fawcett, esq., B. Sc., F. L. S.; E. A. de Pass, esq.

The exhibition, to be opened in January, 1891, will be managed by a commission, his excellency the governor being at the head. This commission has already been constituted by a colonial law.

A committee, has been formed in London, representing Jamaica interests in the United Kingdom, to co-operate with the organizing body in Jamaica. The committee, as at present constituted, is given above, the consent of Lord Knutsford to act as honorary president being especially gratifying to all connected with the colony. That the scheme has taken practical shape is proved by the fact that in the colony alone over £16,000 has already been guarantied out of a total of £20,000 required.

The exhibition will comprise specimens of all Jamaica products: Sugar of all qualities and its allied industry of rum manufacture; liqueurs, cordials, etc.; coffee; oranges, pine-apples, and fruits of all kinds; pimento, cacao, annotto; woods in all degrees of preparation for use; spices, condiments, etc.; fibers and fibrous materials; cinchona bark, oils, essential oils, perfumes, etc.; medicinal and economic substances; works of art, pictures, fancy articles, and ornamental work; horses, cattle, and live stock of all kinds. The botany and geology of the island will also be fully illustrated.

There will also be exhibited specimens of goods imported into Jamaica from all countries.

It is hoped that all parts of the Empire will add to the interest and completeness of this exposition by sending specimens and ornamental trophies illustrative of their productions.

The attention of merchants and manufacturers in the United Kingdom is especially invited. English goods find a ready market in a colony of nearly 650,000 people. It is also desired to show the advance of science in manufacturing tropical products. The engineering firms and manufacturers of machinery are requested to give their aid by exhibiting plans, drawings, models, and specimens, so far as convenient, of actual machinery connected with such manufactures.

Ship-owners are earnestly requested to co-operate by offering to take out specimens free of freight; and all who are interested in the commerce and productive prosperity of Jamaica are desired to give their help to an undertaking which must be beneficial to the colony and all concerned in its fortunes.

As the exhibition will be made as attractive as possible, the question of hotel accommodation for visitors from all parts of the British Empire, from the continent of Europe, and the United States and South America, will be considered, and details published in good time.

Communications and applications for forms and regulations to be addressed, as early as possible, to the chairman, 1 Fen Court, London, E. C.

[Inclosure 2.]

REGULATIONS FOR THE JAMAICA EXHIBITION, 1891.

(1) The exhibition shall be one of island products, manufactures, and works of art, together with exhibits of works of art, machinery, and industrial and agricultural products from Great Britain and other countries and colonies.

(2) The exhibition shall be under the management and conduct of "The Jamaica Exhibition Commissioners" under law 33 of 1889.

(3) The exhibition will be held in buildings to be erected for the purposes of the exhibition on the grounds of "Quebec Lodge," conveniently situated on the northern boundary of the city of Kingston.

(4) The exhibition shall be opened on Tuesday, the 27th of January, 1891, and shall remain open for a period of not less than three months.

(5) In order to secure uniformity of action, there should be in each country or colony a central committee or a single commissioner to act on behalf of the exhibitors. Such committee or commissioner should perform the following functions:

(*a*) Distribute the rules and regulations, application forms, etc., to those likely to become exhibitors.

(*b*) Receive the forms when filled up, the lists of articles for exhibition, etc.

(*c*) Communicate upon all matters directly with the secretary of the exhibition, and forward to him, from time to time, any applications for space.

(*d*) When the commissioners shall have decided how much space is available, it will be the duty of the committee or commissioner to divide it amongst the exhibitors of such country or colony.

There should also be an agent in Jamaica for each country or colony. The same person can, of course, act for more than one country or colony.

(6) Any expenses of whatsoever nature connected with the representation of any country or colony, not borne by the authorities of such country or colony, must be defrayed by the exhibitors themselves.

(7) Applications for space must be made in the printed forms prepared by the commissioners. These must be in the hands of the secretary on or before the 1st of May, 1890.

(8) The secretary shall, before the 1st of July, 1890, notify the decision of the commissioners, and shall state what space, if any, has been allotted.

(9) The reception of articles in the exhibition buildings shall commence on the 1st of September, 1890, and no articles shall be admitted after the 1st of December, 1890. Space assigned and not occupied on the 1st of December, 1890, shall revert to the commissioners, and shall be subject to re-assignment.

(10) All exhibits shall be arranged under some one of the following groups: Group 1, raw materials; group 2, implements for obtaining raw materials; group 3, machines and processes used in preparing and making up the raw materials into finished products; group 4, manufactured goods; group 5, education; group 6, fine arts, literature, and science.

Each of these groups is divided into classes, according to the system of general classification annexed to these regulations (appendix). This appendix includes for each class a summary enumeration of the objects which it will comprise.

(11) All packages from places in Jamaica containing goods intended for exhibition must have placed on them the distinctive mark, "Jamaica Exhibition," as well as the name of the exhibitor, and must contain a detailed list of contents.

(12) Packages from Great Britain or other countries or colonies must likewise have painted on them the distinctive mark, "Jamaica Exhibition." They must be addressed to the exhibitor himself or his private agent, if any, or to the agent, if any, of the country or colony from which they are sent. They must all be marked in such a way as to show distinctly the name of the country or colony from whence they come, and they must contain a detailed list of contents, a duplicate copy of which should be sent by post to the consignee.

(13) Every object sent for exhibition should be accompanied by a label stating the name and address of the exhibitor and the number of the group to which it belongs.

(14) Exhibitors outside Jamaica must provide, either personally or through agents, for the dispatch and transmission of their goods.

(15) The agents in Jamaica of the countries or colonies from which the exhibits are sent are expected to provide for the reception, unpacking, and, at the close of the exhibition, the removal of the goods.

(16) The exhibits in Jamaica, except in the city of Kingston, shall be received by the parochial committees in the several parishes and shall be forwarded by them to the care of the commissioners in Kingston, who shall arrange them in the exhibition and return them to the parochial committees at the close of the exhibition, if not otherwise disposed of. Exhibits in Kingston should be forwarded direct to the care of the commissioners. Individual exhibitors may, however, if they prefer that course, either personally or through their own agents, undertake the reception, unpacking, arrangement, and final removal of their goods, subject to the control of the commissioners.

(17) Exhibitors shall not be required to pay rent for the space occupied by exhibits not intended for sale during the exhibition. Information as to the renting of space for the sale of goods may be obtained from the secretary,

(18) *Exhibition spaces.*—The space granted to a country or colony within the building is available for floor space, exclusive of passages for the public.

(19) *Show-cases.*—No particular form or design is prescribed for cases, counters, platforms, etc., but they must not exceed the following heights without the special written permission of the commissioners: Show-cases and partitions, 10 feet above the floor; counters, 3 feet above the floor; platforms, 1 foot above the floor. Such structures are to be erected by exhibitors at their own cost.

(20) Railings of a uniform height of 2 feet 6 inches above the floor level may be erected. In every instance the railings must be within the area of the space allotted.

(21) The putting up of decorations and sign-boards and the display of printed or written bills shall be subject to any special arrangements made by the commissioners.

(22) Cases must be unpacked as fast as received, and the empty cases taken away by the exhibitors or their agents. No space will be reserved for empty cases.

(23) No exhibitor shall be allowed to transfer any allotment of space, or to allow any other than his own duly admitted exhibits to be placed thereon, except by special permission.

(24) Exhibitors should mark the selling price of articles intended for sale, for the information of visitors.

(25) Objects sold can not be taken away before the close of the exhibition, without special permission. Special arrangements will be made with regard to perishable exhibits.

(26) Exhibitors of apparatus requiring the use of water, gas, or steam must state, on applying for admission, the quantity considered necessary. Those who wish to show machinery in motion must state the rate of speed at which the machine is to be driven. The furnishing of all counter-shafting, pulleys, gas, water, steam, etc., must be at the entire expense of the exhibitor, but under the direct control of the commissioners or their appointed officer.

(27) Spirits or alcohol, oil, essences, corrosive substances, and generally all substances which might spoil other articles and inconvenience the public can be received only in solid and suitable vessels of small size.

(28) Percussion caps, fire-works, chemical matches, and other similar objects can be received only when made in imitation and deprived of inflammable ingredients.

(29) Articles that are in any way dangerous or offensive shall not be admitted into the exhibition.

(30) No article exhibited may be photographed, drawn, copied, or reproduced, in any way whatsoever, without the special sanction of the exhibitor.

(31) Awards will be made by committees specially appointed.

(32) The commissioners will not hold themselves responsible for any loss or damage occurring to any exhibit from any cause whatsoever; but, while declining any responsibilities, it is the intention of the commissioners to take such precautions as they deem necessary.

(33) The commissioners reserve the right to remove the objects belonging to any exhibitor who shall not conform to the regulations.

(34) Exhibits brought into Jamaica at any port of entry will be allowed to go forward to the exhibition buildings, under such arrangements for supervision by the customs officers as may be deemed proper, without examination at the port of entry, and at the close of the exhibition will be allowed to go forward to the port from which they are to be exported. No duties will be levied upon such goods unless disposed of in Jamaica.

(35) Immediately after the close of the exhibition, exhibitors whose exhibits are not under charge of the commissioners shall remove their effects, and complete such removal within one month. Goods remaining after the expiry of the month will be removed by order of the commissioners and sold for expenses, or otherwise disposed of under the direction of the commissioners.

(36) Each person who becomes an exhibitor thereby acknowledges, and undertakes to keep, the rules and regulations established for the government of the exhibition.

(37) The commissioners reserve the right to add to, alter, amend, or expunge any of the foregoing regulations.

APPENDIX—SYSTEM OF GENERAL CLASSIFICATION OF EXHIBITS.

Group I.—Raw materials.

CLASS 1. Raw materials in the mineral kingdom:
(*a*) Minerals.
(*b*) Ores.
(*c*) Phosphates and other natural manures
(*d*) Rocks and their contained fossils.
(*e*) Mineral springs of Jamaica; their analysis and value.
CLASS 2. Raw materials in the vegetable kingdom:
(*a*) Foods—sugar-canes, cereals, roots, cacao, kola.
(*b*) Fruits and vegetables—bananas, oranges, etc.
(*c*) Fibers—sisal hemp, manila hemp, cocoa-nut, cotton, ramie.
(*d*) Timbers.
(*e*) Drugs—tobaccos, coca, cinchona, etc.
(*f*) Condiments and stimulents—coffee, peppers, ginger, pimento, rum.
(*g*) Dyes—log-wood, fustic, annotto.
(*h*) Oils—castor-oil, cocoa-nut oil, essential oils.
(*i*) Ornamental plants.
CLASS 3. Raw materials in the animal kingdom:
(*a*) Cattle and horses, sheep, pigs, etc.
(*b*) Poultry, birds, fishes, turtle, etc.
(*c*) Bees and silk-worms at work.
(*d*) Wool, horn, turtle-shell, corals, etc.

Group II.—Implements for obtaining raw materials.

CLASS 4. Implements used in mining, geology, extracting ores.
CLASS 5. Agricultural and horticultural implements.
CLASS 6. Fishing implements, guns and hunting equipments.

Group III.—Machines and processes used in preparing and making up the raw materials into finished products.

CLASS 7. In the mineral kingdom:
(*a*) Potter's wheel, etc.
(*b*) Glass blowing.
(*c*) Making china, firing, etc.
(*d*) Cutting and mounting precious stones.
(*e*) Metal work, blacksmiths' work, etc.
CLASS 8. In the vegetable kingdom:

(*a*) Sugar machinery, curing cacao, making arrowroot, tapioca, starch, corn shellers and driers.

(*b*) Fruit evaporators, packing oranges, etc.

(*c*) Fiber extracting, rope making, mat making, hat and basket making, weaving cotton, paper making.

(*d*) Carpentry, cabinet making.
(*e*) Making cigars and cigarettes.
(*f*) Coffee machinery, rum distilling.
(*h*) Apparatus for expression and distillation of oils.
CLASS 9. In the animal kingdom:
(*a*) Curing meat and fish.
(*b*) Model dairy, making butter.
(*c*) Preparing silk and wool, and weaving them.
(*d*) Cutting and preparing tortoise-shell and bones.

Group IV—Manufactured goods.

CLASS 10. In the mineral kingdom:
(*a*) Pottery, glass, china.
(*b*) Jewelry.
(*c*) Sewing-machines, needles, and other apparatus for making up clothing.
(*d*) Apparatus for heating and lighting, metal house accessories.
(*e*) Steam-engines, prime motors.
(*f*) Goldsmiths' and silversmiths' work, bronzes, clocks, and watches.
CLASS 11. In the vegetable kingdom:
(*a*) Sugar, chocolate, starches, bread and pastry.
(*b*) Preserves, dried and crystallized fruit.
(*c*) Thread, cordage, mats, brushes, paper, textile fabrics.
(*d*) Furniture, wood-work, farm buildings, model dwellings.
(*e*) Drugs.
(*f*) Coffee, rum, pepper.
(*g*) Dye-stuffs.
(*h*) Oils.
CLASS 12. In the animal kingdom:
(*a*) Cured meat and fish.
(*b*) Dairy produce.
(*c*) Woolen and silk goods.
(*d*) Leather, horn, bone goods, etc.
CLASS 13. Goods made up of materials from more than one of the groups 1, 2, 3.

Group V.—Education.

CLASS 14. Kindergarten appliances.
CLASS 15. Industrial school appliances.
CLASS 16. Organization, methods, and appliances for ordinary education in schools.

Group VI.—Fine arts, literature, and science.

CLASS 17. Fine arts:
(*a*) Architecture.
(*b*) Painting, drawing, photography.
(*c*) Sculpture.
(*d*) Music.
CLASS 18. Literature and accessories:
(*a*) Books, etc., on Jamaica and West Indies.
(*b*) Books, etc., on British isles.
(*c*) Books, etc., on British colonies (exclusive of *a*).
(*d*) Books, etc., on America.
(*e*) Books, general.
(*f*) Book-binding.
(*g*) Printing.
CLASS 19. Science:
(*a*) Maps and charts of the West Indies.
(*b*) Engineering, sanitation, gas, electricity, astronomy.
(*c*) Anthropology.

CONDITION OF THE SISAL INDUSTRY IN THE BAHAMAS.

REPORT BY CONSUL McLAIN, OF NASSAU.

One year ago I made a report to the Department upon the culture of sisal hemp in this colony, calling attention to it as a new industry just being introduced, and which promised to bring substantial prosperity to these islands in the near future.

During the year, and especially within the last few months, so many letters have been received at this consulate from various parts of the United States, making inquiries upon the subject, that I am satisfied a statement touching the present condition of the industry would interest many of our people, and I therefore submit the following:

The progress made in the development of sisal culture in the Bahamas during the past twelve months is marvelous. One year ago there was scarcely a dollar of foreign capital, and very little local, invested in this business in the colony, while to-day parties from Great Britain, Canada, and Newfoundland, representing large resources, are interested in sisal, have bought tens of thousands of acres of Government land, and are industriously engaged in clearing and planting the same to the full measure of their ability to procure the material. A local stock company, styled the Bahama Hemp Company, organized and managed by Nassau capitalists exclusively, has also purchased a large tract of land and is developing the same, whilst thousands of acres are being planted in every direction by individual owners of smaller pieces. American capital up to this date, I regret to say, for it is to its own disadvantage, has been conspicuous by its absence. One company, however, styled the Inagua Hemp Company, organized under the laws of the State of New Jersey, with D. D. Sargent, United States consular agent at Inagua, as manager, has lately procured about 1,200 acres at Inagua and has begun operations.

Messrs. Munro & Co., of St. Johns, Newfoundland, have obtained a grant of 18,000 acres of Crown land at Abaco, and are planting the same. Another tract of 20,000 acres has been allotted to a London company on the same island. Mr. Alex. Keith, of Edinburgh, Scotland, has taken 2,000 acres on Andros Island, and is working upon it. But the largest demand has been made lately by two London companies, who are said to be applying for not less than 200,000 acres between them.

Many applications for land have not been reached at all as yet on the files, the surveyor-general's department being hard pushed in the matter of surveys and locations, whilst new applications are being constantly received, and have to await their turn for consideration. So much land has been taken up that the governor, a short time ago, advanced the price of Crown land from $1.25 per acre, the ordinary price, to $4 per acre, withholding also the benefit of the bounty. And lately it has been decided to sell no more large allotments of Crown land at present, the quantity already allotted with a view to cultivation being as great as the condition of labor in the colony will justify. The number of acres of Crown land already disposed of is about 120,000 acres, whilst pending applications on file and not yet reached will amount to at least 200,000 more.

This substantial withdrawal of Crown lands is creating some movement in real estate—as is natural under the circumstances—between private parties, some old properties changing hands at prices double and treble their supposed values two years ago. Persons buying private lands and cultivating them will share in the bounty of 1 cent per pound provided by law on all fiber raised and exported. Private lands in New Providence can be bought, unimproved, for from $8 to $12 per acre, and for less on the out-islands.

The employment given to laborers in clearing land and in setting out plants has already put considerable money into circulation, the beneficial effects of which are being felt in various quarters. There has been no special advance in the price of labor, field hands commanding from 40 to 60 cents per day, and finding themselves. Each month, however, witnesses a large increase in the number of those who find remunerative employment, and pleasant relations obtain between employers and employed.

The labor question has been and is one that here, as elsewhere, requires delicate treatment; but it has been skillfully met by Sir Ambrose Shea, the governor, who, long ago perceiving that to permit investors to locate upon adjoining lands would induce sharp competition in wages in thinly settled districts, adopted the plan of scattering the allotments about the different islands, or in localities remote from each other on the same island, so that each settlement should have its share of the benefits of the new industry by obtaining, at fair wages, employment for its local labor. In this way, also, a surplus of labor at one point and a scarcity at some other has been avoided. When the entire laboring population becomes employed, as will happen before long at the present rate of development, a new phase of the labor question will arise; but that time is yet in the future, and the remedy can be applied when the situation demands it.

Small shipments of fiber continue to be made by nearly every steamer, a few old plantings furnishing the material. It is not likely that shipments in any quantity will be possible under two years, but after that time an enormous increase may begin to be looked for, increasing steadily as new fields come into bearing, until the annual exports of the colony, which now average about $600,000, will leap well up into the millions, as a moment's reflection will show. It is a very low estimate to expect half a ton of fiber per acre, and a very low estimate to call it worth $100 per ton, for it is worth over $200 per ton in the world's markets to-day. When even the present quantity of land sold and applied for, to-wit, 300,000 acres, is bearing, which ought to happen within five or six years, it will produce 150,000 tons a year, worth $15,000,000—an increase of prosperity that sounds more like a fairy tale than a strong probability deduced from reasonable figures. And yet

300,000 acres is but a small portion of the uncultivated lands within the limits of the Bahamas.

It is estimated that about 6,000 acres of land have already been planted in sisal (a plantation once started needs no replanting for many years), and that many additional ones have been cleared and made ready for the plants, the obtaining of which has been almost impossible, the industry being seriously retarded thereby. The prices paid for plants have risen from 6 cents per dozen to 36 cents, so great has been the demand; but the price will now decline rapidly, since the supply of plants is developing enormously, about 2,000,000 being now available for planting, and others coming on speedily. The pita plant is being found on all the islands growing wild, and the stock of old plants is very great. From the center of the old plant rises a pole about 16 feet in length, on the branches of which small plants grow, averaging a thousand to each pole, and from these poles a vast supply is coming into market, creating a profitable business; for what were two years ago only noxious weeds have all at once become worth $20 apiece for pole plants alone. Quantities of old plants have lately been discovered growing on the cays along the Florida coast, and small schooners are already buying these up and bringing them here for sale. This fact suggests the question whether this new hemp industry, which is about to revolutionize the condition of the Bahamas, may not also be developed in the southern portion of Florida. The plants are found there growing wild just as they are in these islands, and they flourish best in dry sandy soils, fit for little else. I would earnestly call the attention of the Department of Agriculture to this matter, and suggest the propriety of looking into it, and of calling the notice of the people of Florida to this possible source of wealth and prosperity. The conditions of soil, climate, etc., which make its culture a success here may not obtain there, but the simple fact that the plant is found growing wild in Florida is of itself a consideration that should warrant an investigation at the hands of the Department.

The unexampled success of the sisal industry, in so brief a period, in this colony, is entirely attributable to the business-like, systematic manner in which it has been managed by the present governor, Sir Ambrose Shea, who has all along taken a most earnest interest in the matter. He is a man of large experience in affairs, and has practical knowledge of the proper way to manage industrial enterprises. From the start he realized that this industry would be the salvation of the Bahamas, and, setting his heart upon it, he pushed it forward with great energy and prudence, overcoming numerous difficulties, surmounting obstacles, encouraging the faint-hearted, until now the people are touched with his own enthusiasm, and the industry is fairly afloat. He visited England, and by personal effort enlisted capitalists and procured large investments. To Sir Ambrose Shea the colonists owe a large debt of gratitude; and when the signal prosperity which is already hanging over the islands shall have been developed to its full measure, they will more perfectly realize how not only their individual interests, but those of outside investors, have been wisely and prudently promoted and guarded, from the very inception of the industry, by the practical, discreet, and conservative action of their governor.

There can be no doubt or question as to the success of sisal culture in this colony. It has passed far beyond the experimental stage, and is giving daily evidence that it will become a source of wealth to all concerned. The combined conditions of soil and climate especially adapted to the growth of first-class fiber give this colony a marked advantage over other West Indian islands, where the plant may grow luxuriantly enough, but will be found deficient in good, strong fiber. The poorer and more sterile the soil the better the result, and here the plant flourishes where ordinary vegetation seems almost impossible. It is a plant of unfailing growth; it will live without rain to moisten the soil; you can scarcely exterminate it if you try; it requires but little cultivation, and at an expense below that of almost any other agricultural product; and its value is substantial.

As two-thirds of the trade of the Bahamas is now with the United States; as their only steam communication with the outside world is by a subsidized line of American steam-ships running between Nassau and New York; as their increased wealth and prosperity means a larger and more profitable commercial intercourse with our own country, we should view this coming development of their material interests with pleasure, and with the warmest wishes for its complete success.

In conclusion, I would add that I have sent by this mail four samples of the Bahama fiber for the information and satisfaction of the State Department, believing that the same would be of sufficient interest to justify me in so doing. These specimens were not specially selected, but are only fair samples of the average fiber which is now being grown and shipped from the colony. Two of them have still attached a stub, or portion of the butt end of the leaf, which was purposely not passed through the machine, showing the character of the sisal plant whence extracted.

THOS J. McLAIN, Jr.,
Consul.

United States Consulate,
Nassau, January 20, 1890.

American imports at Barranquilla.—Under date of January 7, 1889, Vice-Consul Whelpley reports that the imports from the United States more than doubled during the year 1889, if landing certificates may be taken in evidence. Probably the most marked increase is on refined sugar, as an article for illustration. During the calendar year 1888 landing certificates were issued for 625 half-barrels refined sugar; the calendar year 1889, by record of landing certificates, shows 40 barrels and 2,824 half-barrels to have been landed; caustic soda, 109 drums, against 70 for the year previous, and other imports in like proportion. The new coffee crop, now in commencement of shipment, bids fair to excel past records.

MEXICAN EXPORTS AND IMPORTS.

TRANSMITTED BY MINISTER RYAN.

EXPORT TABLES.

[From the Mexican Financier.]

The following tables are of unusual interest, demonstrating as they do the remarkable increase in the national exportation. Fractions of a dollar and of a kilogram are mostly omitted, which will account for apparent discrepancies in totals:

Comparison of the value of exportation made through the custom-houses of the Republic in the fiscal year 1888–'89 with the corresponding year 1887–'88.

Custom-houses.	1888–'89.	1887–'88.	Increase.	Decrease.
Acapulco	$186,285	$162,775	$23,510	
Altata	500,214	43,551	456,663	
Bahia de la Magdalena	775	93,435		$92,660
Camargo	65,086	45,583	19,503	
Campeche	124,129	76,597	47,531	
Ciudad Juarez	15,492,955	12,022,678	3,470,276	
Ciudad Porfirio Diaz	2,195,586	874,572	1,321,013	
Coatzacoalcos	87,833	165,424		77,591
Frontera	135,697	181,054		45,357
Guaymas	328,971	242,616	86,355	
Guerrero	16,011	30,603		14,592
Isla del Carmen	720,157	781,149		60,992
La Paz	752,859	667,392	85,466	
Laredo de Tamaulipas	2,240,521	1,215,515	1,025,006	
Las Palomas	20,609	50,658		30,049
Manzanillo	156,220	99,996	56,224	
Matamoros	458,667	441,798	16,868	
Mazatlan	5,501,729	4,860,767	640,962	
Mier	127,256	133,359		6,102
Nogales	518,583	691,592		173,009
Palominas	21,759	50,472		28,712
Presidio del Norte		11,332		11,332
Progreso	7,011,852	6,468,385	543,467	
Puerto Angel	171,421	34,287	137,133	
Quitovaquita		304		304
Salina Cruz	102,206	115,414		13,208
San Blas	294,945	380,959		86,014
San José del Cabo	15,595	1,780	13,815	
Santa Rosalia	757,775	575,000	182,775	
Sásabe	30,675	20,853	9,821	
Soconusco	224,978	214,757	10,220	
Tampico	658,022	719,789		61,766
Tijuana	81,373	113,336		31,963
Todos Santos	15,057	2,909	12,148	
Tonalá	171,529	132,307	39,221	
Tuxpan	1,438,560	1,094,902	343,658	
Vera Cruz	19,532,519	16,067,992	3,464,526	
Total	60,158,423	48,885,908	12,006,170	733,656

RECAPITULATION.

Exports of precious metals for 1888–'89	$38,785,274.99
Exports of merchandise for 1888–'89	21,373,148.03
Total	60,158,423.02
Exports of precious metals for 1887–'88	31,006,187.71
Exports of merchandise for 1887–'88	17,879,720.67
Total	48,885,908.38

Value of the exports, according to nations mentioned, in the fiscal year 1888–'89, with the corresponding year 1887–'88.

Countries.	1888–'89.	1887–'88.	Increase.	Decrease.
Germany	$2,061,563	$2,177,106		$115,543
Belgium	50,544	25,583	$24,960	
Colombia	99,997	109,959		9,962
Costa Rica	3,000	2,107	892	
Spain	659,330	457,842	201,488	
United States	40,853,362	31,059,626	9,793,736	
France	3,496,038	4,474,723		978,684
Guatemala	255,383	34,827	220,556	
Holland	134,947	100	134,847	
England	12,535,534	10,540,965	1,994,569	
Italy	50	52		2
Nicaragua	6,815	2,500	4,315	
Peru		25		25
Argentine Republic	520		520	
San Salvador	1,135	490	645	
Venezuela	200		200	
Total	60,158,423	48,885,908	12,376,731	1,104,217

The gains made in the fiscal year 1888–'89 were as follows:

In precious metals	$7,779,087.28
In merchandise	3,493,427.36
Total	11,272,514.64

Résumé by nations of the value of the merchandise and precious metals exported in the second half-year of the fiscal year 1888–'89.

Whither exported.	Value of precious metals.	Merchandise.		Total.
		Quantity.	Value.	
		Kilograms.		
Germany	$497,785	5,040,170	$482,542	$980,328
Belgium		32,131	20,500	20,500
Colombia	44,675	43,983	12,508	57,183
Costa Rica		93,687	1,560	1,560
Spain	235,273	1,465,292	176,566	411,840
United States	11,872,987	107,463,432	10,411,239	22,284,227
France	1,886,713	3,784,118	467,046	2,353,760
Guatemala	94,558	17,967	1,175	95,733
Holland		195,174	127,867	127,867
England	5,582,175	29,622,895	1,390,419	6,972,594
Italy		146	50	50
Nicaragua	4,165	8,721	787	4,952
San Salvador	450	710	385	835
Total	20,218,783	147,768,428	13,092,649	33,311,432

Foreign as well as native readers will find the statistics of the national exportation, given in this issue, of much interest, for the grand total of the country's shipment abroad in the fiscal year ended on the 30th of June, 1889, reached the unprecedented total of $60,158,423, as against $48,885,908 in the previous fiscal period.

A gain in a single year of $11,272,514 is astonishing; we had anticipated a gain of $5,000,000 on careful calculations. The result is most gratifying, and will powerfully aid in building up the credit of the nation.

The gain over the previous fiscal year is, in precious metals, $7,779,087, and in merchandise, $3,493,427.

From computations we have made based on the tables published to-day, and also on tables which will appear later in the treasury statistics, we are able to present the following facts:

Percentage of gain in the total exportation during the fiscal year 1888–'89 over the previous fiscal period, 23.05 per cent.—

	Per cent.
Proportion of gain in precious metals to the above	15.91
Proportion of gain in merchandise to the above	7.14
Total	23.05

The net gain in precious metals was 25 per cent., and in merchandise 19.5 per cent.

The following comparative table will be of especial interest:

Percentage of exportations by nations in two fiscal years.

Nations.	1888–'89.	1887–'88.
	Per cent.	*Per cent.*
United States	67.9	63.5
Great Britain	20.8	21.5
France	5.8	9.1
Germany	3.4	4.4
Spain	1	0.9
Other nations	1.1	0.6
Total	100	100

The United States and England took, therefore, 88.7 per cent. of Mexico's exports in 1888–'89, against 85 per cent. in the previous year, which indicates a growing trade with the two great Anglo-Saxon nations, while exports to France and Germany are falling off, the reduction in exports to the former being nearly $1,000,000 in the period under consideration. Mexico's exportations to the Latin nations are less than 8 per cent. of her total, a most significant commentary on sentimental political economy as expounded by some of our eloquent contemporaries.

The following table will show at a glance how the trade with the United States and England stands:

Comparative table of percentages of exports to the United States and England.

Countries.	1888–'89.	1887–'88.
United States:	*Per cent.*	*Per cent.*
Merchandise	80	73.5
Precious metals	60	57.7
England:		
Merchandise	9	14.5
Precious metals	27	25.5

The only falling off is in England's purchase of merchandise, but this is more than made good by the increased sale to the United States.

The above tables will not be found in the treasury tables, but they are based on the records, and are entirely correct.

Other interesting and useful tables are necessarily deferred to our next issue, owing to lack of space. One in particular will be of value to exporters.

IMPORT TABLES.

[From the Diario Official.]

Comparison of the value of imports made through the custom-houses of the Republic in the fiscal year 1888–'89 with the corresponding year 1887–'88.

Custom-houses.	1887–'88.		1888–'89.	
	Value as per invoice of merchandise.*	Customs duties collected.	Value as per invoice of merchandise.*	Customs duties collected.
Acapulco	$183,996.62	$152,106.39	$231,070.22	$108,690.40
Altata	49,876.25	17,782.36		
Ascensión	65,130.31	35,426.49	4,123.73	2,174.91
Bahía de la Magdalena	19,446.88	9,788.44	9,287.00	4,648.69
Cabo de San Lucas	5,067.75	4,437.92	504.75	180.93
Camargo	37,908.44	19,859.94	50,858.50	30,916.85
Campeche	228,753.01	154,394.23	186,441.89	140,476.90
Ciudad Juarez (Paso del Norte)	7,643,258.07	2,142,866.24	5,946,812.61	1,893,502.97
Ciudad Porfirio Diaz (Piedras Negras)	1,276,127.00	566,712.89	2,155,738.00	1,302,777.72
Coatzacoalcos	5,181.00	4,115.17	812.02	38.78
Frontera	237,679.67	198,238.66	187,978.00	140,558.58
Guaymas	420,632.17	331,327.08	526,790.77	308,145.93
Guerrero	42,076.40	23,785.17	84,328.62	47,415.06
Isla del Carmen	84,889.50	49,098.01	85,809.70	60,162.01
La Paz	117,057.15	55,098.70	151,755.16	67,713.56
Laredo de Tamaulipas	3,665,352.21	1,180,498.19	5,591,876.14	1,598,761.00
Las Palomas			28,074.23	7,906.47
Manzanillo	94,409.05	99,559.83	156,493.75	73,225.70
Matamoros	571,431.95	611,380.46	602,302.46	645,385.30
Mazatlan	1,118,134.03	1,140,139.99	1,045,739.48	1,046,748.75
Mier	105,703.96	62,562.25	114,538.12	124,388.76
Nogales	754,018.35	437,395.02	739,284.45	447,054.07
Palominas	27,383.67	13,231.28	54,938.97	16,937.96
Presidio del Norte	47,386.55	40,600.84		
Progreso	2,089,099.04	1,401,079.58	2,437,543.40	1,478,040.87
Puerto Angel	6,231.18	4,252.67	9,904.82	4,890.61
Quitovaquita	884.29	806.38		
Salina Cruz	45,926.71	30,829.28	55,385.34	35,914.44
San Blas	448,789.40	346,970.88	330,797.42	183,494.22
San José del Cabo			9,926.50	3,990.57
Santa Rosalía	211,606.45	46,248.09	259,330.25	63,185.65
Sásabe	7,743.93	4,009.84	8,517.00	5,296.31
Soconusco	76,337.12	65,060.45	114,881.55	78,860.84
Tampico	822,455.00	547,409.63	513,765.99	408,786.86
Tijuana	33,065.29	20,828.13	126,440.09	37,432.58
Todos Santos	132,149.73	105,987.24	157,862.61	79,342.38
Tonalá	58,317.74	45,619.49	75,865.68	47,745.05
Tuxpan	149,932.88	84,714.22	164,134.74	86,967.28
Vera Cruz	15,730,420.00	11,642,652.23	16,436,468.00	11,757,978.64
Zapaluta	579.80	397.62	1,951.00	855.11
Total	36,614,438.55	21,697,271.28	38,658,332.96	22,340,192.71

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* The values of imports are estimated on the basis of the invoice values of the countries whence the goods are imported, and therefore the dollars are equivalent to American dollars; the exports are estimated in Mexican silver dollars, which are quoted by the United States Treasury at 73.9 cents each.

Table showing total trade.

Description.	1887-'88.	1888-'89.
Exports	$48,885,908.38	$60,158,423.02
Imports	36,614,438.55	38,658,332.96
Balance in favor of Mexico	12,271,469.83	21,500,090.06

RECAPITULATION.

Total foreign commerce 1888-'89	$98,816,755.98
Total foreign commerce 1887-'88	85,500,346.93
Increase from 1888 to 1889	13,316,409.05

THE PACIFIC STATES OF MEXICO.

REPORT BY CONSUL LOUGHERY, OF ACAPULCO, ON THE STATES OF GUERRERO, OAXACA, AND CHIAPAS.

AMERICAN VS. EUROPEAN TRADE METHODS.

Forming an opinion from the number of letters and circulars received from all sections of the United States, it is evident that a large number of American manufacturers and exporters interested in the trade of this coast, embracing firms that have large capital and do an extensive business, have no correct knowledge of what is necessary to a successful enlargement of their trade. They are either not aware of the pains and expense which the Government is undergoing to furnish them with full and correct information of all matters that concern their interests, or they do not read the CONSULAR REPORTS This is surprising, and very much to be regretted. They ought to perceive, as thorough business men, that the imports to this coast are destined, at no distant period, to be largely increased. When the enterprises in progress for crossing the isthmus by canals and railroads are completed, and the railroad from Acapulco to the city of Mexico, with several other railroads from points on the coast in progress or in contemplation are finished, which they will be within a few years, there will be a remarkable change in trade relations. The resistless tide of immigration pouring into our own country will be largely diverted to this, and there will be an awakening of capital and enterprise such as has never been witnessed on this continent or in the history of the world. Already there is a large amount of American capital invested in Mexico, and the aggregate is increasing from year to year. Mexico is our next-door neighbor, with vast undeveloped resources. It has a stable government, and an enterprising, beneficent administration is developing its resources with wonderful rapidity. It is friendly to our country, and disposed to establish liberal trade relations with our people, and to lessen the onerous exactions that have so long stifled and continue to weigh heavily upon the commerce of both countries. It must be evident, in this connection, that the basis upon which we should act is in conjunction with this growing commonwealth. It is the fulcrum of American statesmanship and enterprise. Liberal and enlarged trade relations here, such as are desired by the people of both countries, with the advantages, commercially and socially, growing out of such intercourse, will greatly enlarge American influence in all the countries on the continent. In the consummation of such an achievement our merchants and manufacturers can greatly contribute, and they ought to awaken to its importance. As it is, the states of Europe are in advance of us all along this coast, and are pushing their trade and social relations with an energy and vigor that have given them a large predominance in commerce and trade.

Our enterprising merchants and manufacturers can readily perceive the urgent necessity of active and intelligent work, which, in the near future, will reap for them a rich harvest. They should aim, not only to take the lead commercially in the states bordering this coast, but to infuse into them the spirit of American enterprise and progress. The emigrants from every country bring with them the peculiar civilization under which they have been reared. Hence every American that takes up a residence in any of these states is so much additional strength to republican institutions and advanced business principles. Every railroad that is built, every canal constructed, every mill owned and operated by Americans, every farm owned by them, or any commercial or other enterprise originated or controlled by them is not only a round in the ladder of Mexican progress, but an intelligent movement for the establishment and perpetuity of republican institutions.

EXTENT OF THE CONSULATE.

This consulate extends down the coast to the Guatemala frontier, about 600 miles, and embraces three Mexican states—Guerrero, Oaxaca, and Chiapas. It has two agencies, one at Tehauntepec and the other at San Benito. The states last named are making better immediate progress than Guerrero.

THE STATE OF GUERRERO.

Acapulco.—I have endeavored to explain, in previous reports, the condition of affairs in this immediate section. Guerrero, in which Acapulco is situated, is one of the poorest of the Mexican states. Its agriculture is of the rudest kind. Little is raised here besides corn and cotton, with a very small amount of tobacco and sugar, not sufficient for home consumption. Nearly every thing is brought from abroad. Acapulco, as has been stated, is a town of no commercial importance. Of its population, numbering between 4,000 and 5,000, there are not exceeding three hundred engaged in respectable paying business. The others are colored laborers, eking out a precarious subsistence at a few rials a day. There is not a machine-shop, a furniture, clothing, or furnishing store, or even a watch-maker in the place; there are no skilled workmen, no newspapers, no lawyer, etc. There is not a vehicle in the town, except a scavenger cart and a cart for carrying sun-dried brick. The country surrounding the place is mountainous, and goods and cotton are transported in packs on mules and horses. All labor is manual; even the ships are loaded and unloaded by hand. The town derives its support from the Pacific Mail steamers and the few coaling ships that arrive here during the year. The Pacific Mail line is an American (New York) company, subsidized by the Mexican Government. If that subsidy were withdrawn, in all probability the line would be discontinued, which would inflict serious injury on the trade and travel of this coast, and virtually destroy Acapulco as a town.

The trade of Acapulco has gradually decreased from year to year. Merchants in the interior towns who formerly bought their goods here now get them from the city of Mexico, where there are larger and more varied stocks and lower prices. As it is, owing to the failure of two successive crops, trade has been greatly depressed, and continues languid. From this cause two or three large commercial houses went into liquidation last year. There are now only three large commercial houses in the place, with three or four of a secondary class. The three large commercial houses, all Spanish, act in unison, and virtually control the trade of the place. There are twenty or more little stores, which are, in the main, dependent upon and controlled by the larger ones. The result is, nearly all the goods, machinery, etc., come from Europe. There is not an American doing business in the place. There is some trade with New York and San Francisco in the way of imports, but it does not amount to much in the aggregate. Advertisements and circulars are of no avail. Goods are bought by samples, with prices affixed, and are ordered in packages of easy transportation into the interior. What is needed here is an American house representing American interests.

Crops.—The corn crop, recently gathered, was large. It is the main reliance of the poor people, who comprise a large majority of the population. This crop is planted in June and gathered in October. The cotton crop this year was not full. A full crop is 20,000 bales; the present crop is estimated at 10,000 bales. It is put up in bales of 150 pounds. Cotton is planted in September and gathered in February and March. The cotton raised here is all short staple and inferior. No pains are taken to increase the yield or improve the staple.

Railroads.—The contractors are vigorously at work on the railroad designed to span the isthmus, and expect to have it finished in about two years. Surveyors are also locating a line of railroad running through Tehauntepec, designed to extend from the city of Mexico, via Oaxaca, to Central America. This road is the same one mentioned elsewhere in this report.

Towns and villages.—There are several towns within a radius of 20 miles, viz, San Geronimo, Tetaltepec, Espiñal, Chuitan, and Ilacacotepec, having populations of from 3,000 to 12,000.

Climate.—The climate is considered generally healthy, but during the rainy season there is malaria, and, consequently, considerable sickness.

Agricultural products.—These consist principally of coffee, sugar-cane, and corn. One plantation near San Geronimo yields an annual income of $20,000 on sugar, vanilla, etc. Several near Tehauntepec yield incomes of from $2,000 to $15,000. There is a home market for all that is raised.

This season there are about 1,500 centals of coffee, with a prospect of considerable increase the next season.

Mines and manufactures.—Nothing has been done in mines. Of manufactories there is but one in progress, a cotton-mill of thirty looms, the machinery of which is nearly worn out. The cotton-mill of B. Fernandez & Co., located about 30 miles from Acapulco, with one hundred looms, will be finished by the close of the year.

Outlook.—Every thing here is at a stand-still awaiting developments with the adventitious aids that will come when the leading enterprises now in progress are completed. The town will then be an important place, and its splendid harbor, the best on the foreign Pacific coast, will be utilized.

Guingola.—The greatest object of interest is a mountain called Guingola, which is invested with almost prehistoric romance. It is steep and difficult to climb. Nothing is known of when it was occupied, and no information can be obtained as to the history connected with it. At some remote period it appears to have been a place of refuge. By the appearance of the ruins, and the large pines growing out of them, the place has not been used for over two hundred years. The natives have even no traditions of its occupancy. They regard the mountain with superstitious awe, and it is almost impossible to get one of them to ascend it and pass a night in or near the ruins.

Distances.—From Tehauntepec to the city of Mexico, 624 miles; Oaxaca, 180 miles; San Benito, 185 miles; Tonalá, 80 miles; Acapulco, 288 miles; Puerto Angel, 80 miles; Vera Cruz, 160 miles. As will be perceived, this is a country of magnificent intentions.

STATE OF OAXACA.

Tehauntepec.—I learn from the consular agent at Tehauntepec, Mr. J. W. Jeffries, the following facts: The town has a population of about 15,000, composed principally of Indians. They are of dark color, uninformed, possess no financial means, and have no enterprise. Very few of them can read or write. Many of them have small patches of land, of 8 or 10 acres, planted in corn, which constitutes their main living. There, as here, the crop is planted in an imperfect way, receives but little attention, and is left to the operations of nature.

There is one manufactory at Tehauntepec, owned and operated by an American, which is the largest and most complete of any south of the city of Mexico. It consists of a saw and planing mill and carpenter and cabinet shop combined. He is a contractor for all kinds of wood-work, and is doing a thriving business, having all the work he can do. The prospective advantages of Tehauntepec are very encouraging. With the railroad finished across the isthmus, with connecting lines of ocean steamers, the town will become an important shipping point. At present the loading and unloading of vessels has to be done by surf-boats. The company has contracted to construct an iron wharf to deep water, which will furnish a safe and commodious harbor. The commerce of Tehauntepec is increasing. The imports from the United States last year amounted to $70,830, while the exports reached the sum of $43,300. Goods from the United States consisted mainly of machinery, hardware, provisions, flour, coal-oil, wine, and beer. The exports are coffee, hides, indigo, and rubber.

THE STATE OF CHIAPAS.

Railroads.—The most favored state in this consular district at present is Chiapas, where improvements of an important character by an English company, with English capital, are in rapid progress. The port of Tonalá, hitherto an unimportant point, is coming into prominence as a prospective leading town or city on the Mexican coast. There are two railroad enterprises, one in active progress and the other being surveyed preparatory to early construction. One is interoceanic, extending to Tabasco, on the Atlantic, and the other from the city of Mexico to Guatemala, which will cross the isthmus road at a point near the Atlantic side. The line is already located.

The distance of this interoceanic railroad across the isthmus is 320 miles. The company has now about four hundred men on the work, and will soon largely increase this force. The road is graded to the town of Tonalá, 16 miles. To that point it is comparatively level and of easy grade. Beyond that the country is hilly. For about 200 miles the work will be heavy, with tunnels and a number of costly bridges. At the last accounts about 20 miles of steel rails had been received, with locomotives, cars, cranes, machinery, and other material. It is stated that there will be a steamer every month from Maryport, England, with material until the work is finished. Hitherto there has been only an open roadstead at Tonalá, with heavy, beating surf, rendering the landing of passengers and merchandise difficult and dangerous. The company has constructed a wharf reaching beyond the surf to deep water. It is 900 feet in extent, compactly and strongly built, with Connell's patent. The leading contractor and director of this work is an American. It is stated that Americans and Europeans, men of industry and enterprise, are constantly arriving. Under their management and vigorous work the country is likely to be rapidly developed.

Agricultural advantages.—The lands are said to be rich, and the climate pleasant and salubrious. The products are coffee, sugar-cane, vanilla, hides, and many kinds of dye and furniture woods.

To afford a more perfect idea of this section, it is necessary to state localities and distances. The port of Tonalá is about 368 miles from Acapulco, down the coast. It is 80 miles, this side, from Salina Cruz, which is near the Guatemala frontier. The town of Tonalá is located in the interior, about 48 miles from the coast. It has a population of 6,000, composed of the same character of people that are found in nearly all the towns on this coast.

R. W. LOUGHERY,
Consul.

UNITED STATES CONSULATE,
Acapulco, January 28, 1890.

SHIP'S DEMURRAGE AT BUENOS AYRES.

REPORT BY CONSUL BAKER.

In the interest of ship-masters and ship-owners it seems proper that I should call attention to the manner in which charter-parties for cargoes from the United States to the river Plate are not infrequently treated at this end of the voyage. Indeed, the complaints made to me by ship-masters are in many cases not only compromising to consignees here, but to the charterers in the United States. I refer to the question of demurrage, and it is getting to be the exception, rather than the rule, when these claims are settled according to the terms and provisions of the contract. Either the masters are unable to get any thing at all or they get what the consignees choose to give them.

In some cases, as they explain to me, while their charter-parties have the usual clauses in regard to the number of lay days, and ample provision is made for the payment of a fixed daily amount for demurrage when the lay days have expired, they also contain another clause, which says that "the liability of the charterers shall cease upon the signing of the bills of lading." The effect of this provision is to leave them without any recourse upon the charterers at home, in case they are unable to effect a settlement with the consignees down here. They are, indeed, left entirely to the tender mercies of the consignees, and whether they get any thing for their demurrage or get only a fraction of it depends upon the conscience of the parties they have to deal with. Of course, there are many honorable exceptions to this unfair method of doing business. There are merchants here who are as scrupulous in their dealings with foreign ship-masters as they are in protecting their own credit in bank. But in too many cases claims for demurrage are cut down to a mere nominal sum, which ship-masters are compelled to take or receive nothing.

It is true they have the right to institute legal proceedings in the Argentine courts against their consignees; but, of course, it would be impracticable for them to remain here to prosecute their claims, especially as, being non-residents, they would be required to give bond or deposit their freight money for court costs or expenses of suit, while the consignees, being residents here, and thoroughly acquainted with the methods by which the prosecution of a suit can be delayed for even years, have all the advantage in their own favor. Thus ship-masters who make charter-parties with this clause in them not only sign away their legal remedy at home, but have no adequate remedy here.

Only a few days ago a case of peculiar hardship occurred here, where a vessel which brought railway materials to a railway management was kept waiting until she had thirty-six days' demurrage, which, at $70 per day, amounted to $2,520; but, after unsuccessfully dancing attendance on the company for nearly two weeks, the master was finally under the necessity of leaving port without receiving a cent or effecting any settlement. Of course, he could not afford to remain here with his ship to fight a wealthy railway concern in the courts.

There is another class of charter-parties which just now are also causing considerable dissatisfaction, owing to the unfair manner in which they are construed by consignees at this end of the voyage. These have a clause in them which reads about as follows: "It is hereby agreed that the lay days for receiving and discharging shall be as follows, commencing from the time the vessel is berthed at place of receiving or discharging cargo, and written notice thereof to be given to the party of the second part or their agent," etc. Now, all this sounds right enough, and I suppose in the United States it is construed fairly; but in a number of recent cases, when the vessels arrive here, they have been kept out of a berth for weeks, the consignees thus deliberately preventing them from being in a position to discharge cargo or give the required notice, and postponing indefinitely the date when their lay days for discharging shall begin. I am not surprised that ship-masters are indignant at the dishonest conduct of thus keeping vessels on expenses at the pleasure or convenience of consignees. In European ports, I believe, the limit at which vessels, under such clauses in their charter-parties, can be kept out of their berths is three days, and in New York, I am told, it can not be more than five. Here in Buenos Ayres, however, there appears to be no limit fixed by commercial law or usage, and vessels are thus left quite at the mercy of those to whom they are consigned. There are two vessels in port at the present time that had to wait upwards of fifteen days before their consignees assigned them a berth for discharging. The injustice of such conduct is too glaring to require discussion.

The remedy which ship-masters should apply to meet these cases is in their own hands. In regard to the first, they should require to be eliminated from the charter-party the clause which releases the charterers at home from responsibility after the bills of lading are signed; and, in regard to the other, they should insist upon a clause which provides that they shall be assigned a berth within a stated number of days after their arrival in port. Then, if consignees will not settle fairly here, ship-masters can look to their charterers at home.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, January 16, 1890.

ARGENTINE PROGRESSIVE STATISTICS.

REPORT BY MINISTER PITKIN, OF BUENOS AYRES.

I have the honor to submit to the Department an exhibit, which challenges attention, in respect of the progress of the Argentine Republic, and a letter which accompanies it from the foreign office. The presentment necessitated no little labor in the several departments contributing to it, and the recited motive of its composition affords but one of many tokens disclosed by the Government of a desire that this country should be more accurately known to the United States.

JOHN R. G. PITKIN,
Minister.

UNITED STATES LEGATION,
Buenos Ayres, November 28, 1889.

MR. ZEBALLOS TO MR. PITKIN.

[Inclosure in Mr. Pitkin's report.]

BUENOS AYRES, *November 22, 1889.*

Estanislas S. Zeballos, minister for foreign affairs, feels great pleasure in forwarding a statistical résumé, which he has caused to be drawn up especially for His Excellency Mr. John Pitkin, in connection with the progress of this Republic during the last few years, as he believes that said résumé may facilitate the study His Excellency has evinced a desire to carry out, with a view to communicating the same to the United States Government, as also with a view to rendering his relations with the Argentine Government as efficient as possible as regards the widening out of commercial interchange between both nations.

1.—*Statement showing the imports and exports of the Argentine Republic for the years 1880–'89.*

Year.	Imports.	Exports.
1880	$45,535,880	$58,380,787
1881	55,705,927	57,938,272
1882	61,246,045	60,388,939
1883	80,435,828	60,207,976
1884	94,056,144	68,029,836
1885	92,221,969	83,879,100
1886	95,408,745	69,834,841
1887	117,352,125	84,421,820
1888	128,412,110	100,111,903
1889	143,000,000	125,000,000

2.—*Statement showing the imports and exports by countries for the years 1879–'88.*

Year.	Imports.	Exports.
Belgium:		
1879	$3,108,310	$14,313,057
1880	2,483,106	14,356,458
1881	3,501,509	14,099,811
1882	2,868,260	14,364,842
1883	3,261,077	12,148,946
1884	7,249,877	14,879,945
1885	7,463,893	14,883,506
1886	7,721,817	10,924,737
1887	10,947,955	12,111,531
1888	11,084,482	16,679,944

2.—*Statement showing the imports and exports by countries, etc.*—Continued.

Year.	Imports.	Exports.
Great Britain:		
1879	$12,431,467	$3,878,970
1880	12,506,924	5,341,034
1881	16,035,277	3,889,425
1882	19,554,963	7,625,516
1883	30,695,963	5,936,093
1884	30,727,694	7,211,437
1885	35,375,628	12,816,341
1886	33,432,660	10,071,850
1887	34,779,210	17,085,001
1888	44,044,851	17,061,411
Germany:		
1879	2,292,574	1,588,166
1880	2,365,152	2,541,828
1881	3,527,570	4,004,887
1882	4,764,622	4,803,962
1883	7,028,051	4,823,827
1884	8,868,930	6,813,713
1885	7,262,999	8,512,443
1886	8,044,875	6,950,908
1887	12,108,456	9,835,754
1888	13,310,094	13,309,546
France:		
1879	9,408,983	12,009,280
1880	8,292,872	16,103,202
1881	10,279,793	16,654,403
1882	12,186,824	16,398,990
1883	15,418,997	21,041,495
1884	16,785,590	22,518,371
1885	14,545,195	24,164,829
1886	17,002,038	22,342,183
1887	22,743,550	24,871,354
1888	22,966,857	27,973,561
Italy:		
1879	2,719,587	1,655,607
1880	2,618,973	2,127,524
1881	2,817,055	2,434,783
1882	2,916,378	1,674,962
1883	3,480,321	1,651,834
1884	3,966,644	1,804,484
1885	4,207,946	2,448,014
1886	4,647,237	2,476,438
1887	7,037,741	3,107,113
1888	7,764,023	2,742,960
Spain:		
1879	2,249,608	761,373
1880	2,474,288	1,177,121
1881	3,425,560	1,269,805
1882	2,906,156	1,308,581
1883	3,790,760	1,321,559
1884	4,701,790	1,517,678
1885	3,189,331	2,241,875
1886	3,717,595	1,166,447
1887	5,005,699	1,321,203
1888	3,913,811	8,313,864
United States:		
1879	3,921,380	3,917,676
1880	3,224,744	5,126,430
1881	4,268,110	4,035,714
1882	5,094,764	2,956,083

2.—*Statement showing the imports and exports by countries, etc.*—Continued.

Year.	Imports.	Exports.
United States—Continued.		
1883	$4,933,054	$3,510,574
1884	7,454,832	4,064,848
1885	7,006,719	5,563,841
1886	7,673,284	3,580,406
1887	11,004,553	5,938,808
1888	9,909,895	6,665,520
Uruguay:		
1879	2,192,327	1,429,242
1880	3,237,587	1,858,003
1881	3,266,951	2,000,561
1882	2,892,912	2,048,778
1883	4,443,447	1,934,582
1884	5,683,343	2,110,849
1885	4,241,700	3,367,866
1886	5,938,050	2,767,616
1887	6,507,934	2,360,005
1888	5,433,001	2,681,283
All other:		
1879	8,039,356	9,734,186
1880	8,332,869	9,749,187
1881	8,634,102	9,548,884
1882	8,061,166	9,212,724
1883	7,384,164	7,839,066
1884	8,617,454	7,118,511
1885	8,928,558	9,930,385
1886	7,231,189	9,554,256
1887	7,217,027	7,791,051
1888	9,985,096	9,683,814

3.—*Statement showing the national revenue of the Argentine Republic for the years 1880–'89.*

Year.	Amount.	Year.	Amount.
1880	$20,247,487	1885	$38,550,972
1881	22,057,500	1886	46,634,361
1882	26,655,105	1887	56,882,057
1883	30,713,348	1888	57,110,734
1884	37,236,820	1889	66,000,000

4.—*Statement showing steam navigation of the Argentine Republic for the years 1880–'88.*

Year.	Vessels arriving.	Tonnage.
1880	2,524	878,841
1881	2,542	905,082
1882	3,040	1,104,927
1883	3,626	1,437,018
1884	5,745	2,278,704
1885	6,671	2,829,726
1886	6,288	2,751,052
1887	6,607	3,460,870
1888	5,935	3,692,925

5.—*Statement showing number of sheep and quantity of wool product in the Argentine Republic for the years 1857–'87.*

Year.	Number of sheep.	Product of wool.
		Kilograms.
1857	15,989,405	18,387,810
1858	17,796,897	20,466,432
1859	17,524,174	20,152,800
1860	16,262,827	18,702,252
1861	25,733,489	29,593,512
1862	25,560,848	31,694,970
1863	35,258,038	38,246,742
1864	38,617,466	44,410,086
1865	51,650,184	59,397,716
1866	50,820,526	58,443,602
1867	59,638,071	65,583,782
1868	58,463,728	67,233,285
1869	59,677,986	68,651,649
1870	61,704,827	70,960,551
1871	67,288,850	77,290,178
1872	86,800,195	99,820,828
1873	78,636,440	90,431,905
1874	75,324,508	86,623,184
1875	85,188,297	97,978,041
1876	83,841,674	69,417,924
1877	91,418,696	105,131,500
1878	76,909,312	88,445,708
1879	86,505,596	99,481,436
1880	91,582,206	105,519,536
1881	98,380,474	113,137,475
1882	104,252,680	119,890,580
1883	111,196,488	127,875,961
1884	107,384,540	123,492,220
1885	120,578,023	138,664,725
1886	124,087,767	142,700,936
1887	103,413,817	118,925,889
Total	2,127,437,069	2,446,552,620

6.—*Statement showing number of sheep in various countries in 1886.*

Countries.	Number.	Countries.	Number.
Argentine Republic	108,550,091	England	28,889,056
Australia	85,310,000	France	27,000,000
United States	44,750,314	Germany	28,000,000

7.—*Statement showing the immigration into the Argentine Republic for the years 1880–'89.*

Year.	Immigrants	Year.	Immigrants.
1880	41,651	1885	130,222
1881	47,484	1886	112,409
1882	59,843	1887	137,427
1883	73,210	1888	177,267
1884	103,184	1889	250,000

8.—*Statement showing the number of immigrants into the Argentine Republic from the several countries for the years 1857–'88.*

Countries.	Immigrants.	Countries.	Immigrants.
Italy	646,068	Austria	16,768
Spain	144,654	Germany	15,271
France	91,759	Belgium	7,645
England	22,952	Other nations	26,985
Switzerland	18,072	Via Montevideo	388,605

9.—*Statement showing the number of schools and attendance.*

Year.	Number of schools.	Attendance.
1872	1,407	69,820
1873	....	97,549
1874	....	97,687
1875	1,816	109,941
1876	1,896	117,127
1877	1,946	120,000
1880	1,309	97,756
1883	1,473	107,961
1884	1,558	121,861
1885	1,741	123,532
1886	1,935	151,399
1887	2,238	173,184
1888	2,396	206,569
1889	....	254,608

Alumni in the Republic (State and private schools), 254,608; alumni in federal capital, 45,646; school buildings in the federal capital, 73; approximate value of same, $9,506,948.63.

10.—*Statement showing the population of the Argentine Republic and of the federal capital.*

National census:	Inhabitants.
1833	550,000
1869	1,877,490
1889	4,000,000
Census of federal capital, 1889	450,000

11.—*Statement showing value of landed and other property.*

Landed and other property belonging to the Republic	$705,793,173
Value of landed property (approximately) in federal capital	1,107,787,800

12.—*Statement showing the strength of the Argentine army.*

	Number of men.
General staff	1,000
First corps (commanded by ex-President, Lieut. Gen. D. Julio A. Roca)	33,000
Second corps (commanded by Lieut. Gen. D. Emilio Mitre)	33,000
Third corps (commanded by Lieut. Gen. D. J. A. Gelly y Obes)	33,000
Reserve	33,000
Total of the national guard ready to take arms	400,000

THE TELEGRAPH AND TELEPHONE IN BELGIUM.

REPORT BY CONSUL ROOSEVELT, OF BRUSSELS.

I. THE TELEGRAPH.

While desiring to give complete information on the telegraph in Belgium, I am somewhat embarrassed in not being able to secure any data whatever relating to it later than 1887. The first telegraph line constructed in the country was established in 1846, along the railroad from Brussels to Antwerp, a distance of 40 kilometers, by two Englishmen, Messrs. Charles Wheatstone and William Fothergill Cook, by virtue of a concession granted by the Crown under certain clauses and conditions, such as the expense of building, placing batteries and apparatus, and maintaining the line in a perfect condition at the expense of the grantees; the removal of apparatus at the suggestion of the railroad company, but at the grantee's expense; a special wire and apparatus to be placed gratuitously at the disposition of the railroad company, for the transmission by day or night of communications and dispatches on the line from Brussels to Antwerp, or on any branch line which the agreement rendered applicable in execution. The agreement of the contract was for a period of twenty-one years, at the expiration of which term the railroad company reserved the right to take the various apparatus at their intrinsic value. The department of public works also reserved the right to annul the contract without the company in any manner thereafter claiming indemnity. Four years after the installation of the line the Belgian Government bought it from the grantees, and this small beginning was the nucleus of the extended system which now reaches to the remotest corner of the Kingdom and places Belgium in telegraphic communication with the entire civilized world. The telegraph in Belgium is at present entirely a Government monopoly.

Tariff.—The tariff for ordinary telegrams exchanged within the Kingdom is as follows: Fifteen words, 50 centimes; indivisible series of five words above fifteen up to fifty, 10 centimes additional; indivisible series of ten words above fifty, 10 centimes additional. Senders of telegrams may obtain priority of transmission by paying double tariff. Telegrams transmitted between 9 p. m. and 7 a. m. also pay double tariff. By paying a supplement equal to one-fourth of the ordinary tariff the sender obtains a guaranty of verification, in which case the telegram is repeated integrally from bureau to bureau. The present tariff, in force since January 1, 1882, is advantageous to the public, but not satisfactory to the Government, as the report of 1887 shows that interior telegrams paid the Government on an average about 50½ centimes, while the actual cost to the Government was about 79 centimes. The deficit in receipts was estimated at 521,521 francs, which was, however, counterbalanced by a profit of 50,000 francs on international telegrams. However, there still existed an important deficit arising from the enormous transmission of telegrams without equivalent compensation, relating to the service of Government railroads.

Personnel.—The personnel of the service consists of six thousand seven hundred and ninety-six persons, distributed as follows:

Superior personnel of the central service	177
Number of functionaries and office employés	874
Total number of employés, including auxiliaries, scholars, and carriers	1,051
Subordinate personnel, laborers, etc	1,583
Railroad, post, bridge, and road agents who assist in the transmission of telegrams	3,111
Total	6,796

Financial results.—The receipts for 1887 were as follows:

	Francs.
Interior service	1,398,496.60
International service	1,159,039.45½
Transit service	244,720.97
Total	2,802,257.02½
Addresses written under abridged or agreed form	9,030.00
Sum due by the companies for use of wire and apparatus of the Government, and extraordinary proceeds	3,795.13
Telephone receipts	95,932.61
Total	108,757.74

Expenditure.—The expenditures of 1887, paid by the special budget of the telegraph, were as follows:

	Francs.
Fixed salaries	2,286,000.00
Salaries	1,091,180.00
Total	3,377,180.00
Share of the Belgian administration in the expenses of the international bureau at Berne	1,616.75
Material and apparatus	278,270.00
Share in the expenses of the combined service, post and telegraph	77,851.16
Total	3,734,917.91

The direct expense of the telegraph exceeded receipts 757,939.54½ francs.

Cost of first establishment.—Up to December 31, 1887, the first cost of establishing the telegraph had increased to 5,330,000 francs, divided as follows:

	Francs.
Telegraph lines, poles, conductor wires, supports, accessories, and underground conductors	3,298,664.32
Apparatus for transmission, piles, accessories, locals, furniture	1,736,992.42
Appropriation for telephone and simultaneous telegraph	204,219.11
Telephone line to Ostend	51,410.50
Supplies	58,713.65
Total	5,330,000.00

Dividing the sum of 5,330,000 francs by 27,884 kilometers of conductor wire, it is seen that the expense per kilometer is 178.36 francs, which, I may add, includes the cost of apparatus and all necessary office fittings. Considering the telegraph as a whole, it expended, in 1887, 1,451,224 francs more than it earned. About two-fifths of the work and expense, however, were devoted to gratuitous correspondence essential to the transport service of the Government, which, besides, contributed to the expense of the telegraph out of its own budget a share amounting to 693,285 francs. The telegraph, notwithstanding this, expended 641,768 francs more than it received in its relations with the Government railroads. In spite of this large sum, the telegraph was not a loser, as the means of exploitation furnished by the railroads amounted to 657,710 francs, which would have amounted to much more had the telegraph secured the same without the aid of the railroad. And in like manner the 2,086,593 francs service telegrams, which cost the telegraph service 1,299,478 francs, would cost the railroad a much larger sum were it forced to create and maintain a special telegraph service devoted entirely to its vast correspondence.

Telegraphic correspondence for 1887.

Description.	Interior.	International.
Classification of telegrams according to number of words:	*Per cent.*	*Per cent.*
1 to 10 words	....	55.03
11 to 15 words	70.79	25.40
16 to 20 words	17.60	10.20
21 to 30 words	8.90	6.15
31 to 40 words	1.75	1.80
41 to 50 words	0.42	0.56
Above 50 words	0.54	0.86
Classification of telegrams by categories:		
Simple telegrams	85.17	....
Complex telegrams	13.30	....
Urgent telegrams	1.53	....
Classification of telegrams according to their object:		
Government dispatches	1.23	1.63
Exchange dispatches	6.02	15.38
Commercial transactions	28.58	44.35
Newspaper correspondence	0.94	3.77
Private affairs	63.23	34.87
Nature of communication:		
Railroad service—		
Movement of trains	69.5	69
Packages lost or miscarried	9.7	10.3
Various affairs	13.8	13.3
Telegraph service	3.8	4.6
Postal service	3	2.7
Marine service	0.2	0.1

NOTE.—Average length of telegrams: Interior, 15.47; international, 11.60. Service dispatches transmitted: Interior, 2,270,174; international, 2,265,699.

This tabulated statement does not include 243,764 telegrams transmitted and received by the Government agents for the exploitation of granted railroads.

2. THE TELEPHONE.

During the year 1887 two additional local telephone lines were opened to the public, one from Brussels to Lierre and one from Brussels to Lacken, both embracing all intermediate towns and villages, thus creating fourteen local lines in full function. The local lines were united December 31, 1887, by two telegraph wires, of 45 lines, appropriated to telephonic correspondence according to Van Rysselberghe's system. The total length of these lines is 2,885 kilometers, representing a development of 5,770 kilometers of conductor wires, serving at the same time for both telegraph and telephone service.

International telephone.—February 24, 1887, an international telephone service was inaugurated between Brussels and Paris, in consequence of the Franco-Belgian convention of December 1, 1886. In Belgium the line is adjusted to the telegraph poles along the railroad. It is composed of a double wire of high conductor power, having a diameter of 3 millimeters and extending over 320 kilometers, about one-fourth of which is on Belgian territory. The communications are exchanged between chambers of commerce or stock exchanges, in which buildings are special telephone offices accessible to the public. The verbal correspondence is made with remarkable clearness and ease, while at the same time the second circuit can be utilized for the transmission of telegraphic communications.

The international convention of April 4, 1887, reduced the tariff for daily communications of a minimum duration of ten minutes. Monthly rate per sitting of 40 minutes, 100 francs; longer than 40 minutes, 50 francs each successive ten minutes.

The new enterprise is a complete success. During the first year of operation the line was daily employed five hours and ten minutes, the time being equally divided among the eight private subscribers. The Brussels-Paris telephone was the pioneer international telephone on the European continent. Its functions had hardly commenced before the necessity of a second circuit, to satisfy the demands of intercourse during the hours of operation of the exchanges, was recognized.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Brussels, January 22, 1890.

WAGES AND SHIP-BUILDING IN NOVA SCOTIA.

REPORT BY CONSUL-GENERAL FRYE, OF HALIFAX.

Having lately made inquiries in reference to the wages of men employed in the ship-yards of Nova Scotia, the cost of ship-building materials, the taxation of vessel property, and especially as to the cost of building fishing vessels, I deem the information obtained, though not complete upon these subjects, of sufficient value at this time to communicate to the Department.

Vessel building is carried on to a greater or less extent at many of the ports of this province. At Halifax, although much shipping is owned here, no large vessels are built, and but few of any kind. Perhaps Maitland takes the lead in building merchant vessels of the larger class. Windsor, Hautsport, Spencer Island, and other places along the shores of the Minas basin have built many vessels; so has Yarmouth. Fishing vessels have been built more at Shelburne, Lunenburg, and at ports where the people are more engaged in the fisheries.

WAGES IN THE SHIP-YARDS.

In answer to inquiries made at a number of the principal vessel-building ports, I obtain the following reports as to the rates of wages:

Places.	Workmen.	Per diem.
Halifax	Riggers	$2.25 to $2.50
	Calkers	2.70
	Painters	2.00 to 2.25
	Laborers (dock work)	1.50 to 2.00
Windsor	Carpenters	1.60 to 1.75
	Joiners	1.60
	Riggers	1.75 to 2.00
	Calkers	1.75
	Painters	1.50 to 1.75
Hautsport	Carpenters	1.60
	Joiners	1.60
	Riggers	1.75 to 2.00
	Calkers	1.60 to 2.00
	Painters	1.50
Maitland	Carpenters	1.25 to 2.00
	Riggers	
	Calkers and Painters	
Annapolis	Carpenters	1.40 to 1.60
	Painters	1.50 to 1.60
	Calkers	2.00 to 2.40
	Riggers	2.25 to 2.50
Lunenburg	Carpenters	1.25 to 1.50
	Calkers	1.75 to 2.00
	Painters	1.00 to 1.25
	Master painters	1.50 to 1.75
	Master riggers	2.00 to 2.50
	Master builders	2.50 to 3.00
Shelburne	Carpenters	1.25
	Calkers	2.00
	Riggers	1.50
	Painters	1.25
Barrington	Carpenters	1.50 to 2.00
	Calkers	2.00 to 2.50
	Riggers	1.50 to 2.25
	Painters	1.25 to 1.75
Parrsborough	Carpenters	1.50 to 1.75
	Calkers	1.50 to 1.75
	Joiners	1.75 to 2.00
	Painters	1.75 to 2.50

It will be observed that the rates vary somewhat at the different ports, but a fair average of the wages can be easily estimated for each class of laborers. I think it will be found that the rates are materially lower than those prevailing in American ship-yards.

COST OF MATERIALS, ETC.

Answers to inquiries as to the cost of ship-building materials and the cost per ton of building vessels furnish the following information: At Lunenburg, where fishing vessels are built, the prices of materials are—for hard wood plank, 2½ to 5 inches, $13 per thousand; spruce dock-plank, 3¼ to 4½ inches, $11 per thousand; spruce ceiling, $10 per thousand; floor timbers, say 12 feet in length, sided up 9 inches, $1.25 to $2.50 apiece; hard wood buttocks, 10 feet in length, sided 9 inches, 5 cents per running foot; spruce deck-beams 20 to 24 feet in length, sided 10 inches, about $2.50 each; deck-knees, 30 to 40 cents each; keel (hard wood), 9 by 13 inches, 25 cents per running foot; 10 by 14 inches, 30 cents per foot; keel-shoeing (hard wood), about $15 per thousand; stem, $5 to $8; stern port, $3 to $3.50; bowsprit, 32 feet long, 21 inches diameter, 10 feet from butt, $14.

My correspondent at Barrington says:

> All fishing vessels are planked with oak, which costs from $22 to $25 per thousand. Spruce deck plank costs $12. Generally speaking, you may say of Nova Scotta fishing vessels that their floor timbers are oak and birch, naval timbers and stanchions of hackmatack and spruce; outside plank, oak; ceiling and deck, spruce; bolting streaks, hard pine. Vessels over 200 tons are planked with spruce.

A correspondent at Shelburne, where many fishing vessels are built, says:

> Fishing vessels usually have hard wood floors; pine, spruce, and hackmatack timber; plank, generally oak and birch—all obtained here. Large spars are brought from the upper provinces. Floor timbers cost $2 to $2.50; buttocks (hard wood), 60 to 75 cents; stanchions, 25 cents; oak plank, $24 to $28 per thousand; birch, $16 to $18; spruce, $10 to $12. No southern pine is used.

Anchors of American manufacture are largely used by the fishermen. They are preferred to the English make. The American sells for about 7 cents per pound, the English for about 5 cents, and the iron-stock English anchor for about 4½ cents.

Nova Scotia bolt iron and spikes are chiefly used. The iron is sold for about $2.30 per 100 pounds; 6-inch wrought-iron spikes are worth $3.65 per 100 pounds; galvanized, about $5.80. Metal bolts and sheathing are imported from England, and sell for 12½ to 13 cents per pound. Patent metal bushings, ¾ by 1¼ cost 61 cents each. Pure white lead is worth about $5.75 per 100 pounds; Canadian copper paint, $1.50 per gallon; American, $1.75.

Fish-hooks are imported from England, and sell for 25 cents per gross. Wire rope, also from England, sells at from 4½ to 5½ cents per pound.

Nova Scotia cordage is mostly used, very little being imported from the United States. Manila is worth about 14 cents; tarred hemp, about 9½; manila hawsers, 13½. Tarred cotton fish lines are imported from the United States, and sell for about 16½ cents per pound. Sail duck is worth from 18 to 32 cents per yard, according to number and quality. Very much less American duck is used here than formerly, as a good quality is now manufactured at Yarmouth, N. S., which is extensively used. Still, the American is preferred by many, and, through the agent of the American manufacturers, can be bought about as low as the Yarmouth duck. The quality of duck used by the fishermen costs from 25 to 27 cents per yard.

COST OF FISHING VESSELS.

I have made many inquiries as to the cost of building fishing vessels in the province. At Shelburne, I am informed, the cost per ton for hull and spars, carpenters' measurement, is $20 to $22 for a vessel of about 100 tons. Fitted for sea, without fishing supplies, the cost is about $10 per ton more. This price corresponds very nearly with prices given at Lunenburg and Barrington. At the latter place my correspondent says that a fishing schooner costs about $23 per ton, carpenters' measurement, or about $4,000 for hull and spars. The sails, rigging, anchors, chains, and fishing cable cost about $2,000 more.

A leading ship-owner in Yarmouth, familiar with the cost of merchant vessels more especially, says:

> Ships of 1,500 tons will cost now $36 to $38 per ton, all complete. A vessel of 557 tons register, built this last season, cost $27,000. The increased cost of iron now will make ships cost more. * * * Labor is cheaper here than in the United States. * * * Schooners of about 100 tons register cost about $6,000. You can figure on fishing schooners for about $60 per registered ton; $36 per registered ton I consider about a fair price for a large ship ready for sea.

At Annapolis the prices given me for the larger-sized vessels are somewhat higher. For vessels built of spruce, beech, birch, and maple, ironed with galvanized iron, and copper fastened up to within two feet of loading line, and which would class twelve years in American Lloyd's, the following cost prices are given: 200 registered tonnage, $50 per ton; 300 to 400 tonnage, $48; 400 to 800, $45 to $47; 800 to 1,000, $40 to $42.

A builder in Hauts county estimates the average cost of a copper-fastened ship, ready for sea, at about $40 per ton. Another ship-owner in the same locality gives $26 per ton as the cost of hull and spars of a vessel iron fastened, without sails or rigging.

These opinions are given as they have been received. Other estimates as to the cost of fishing vessels are a little lower than $60 per ton, but I conclude that can not be much above the cost of a new first-class fishing vessel of 100 tons register, ready for sea.

TAXATION OF VESSELS.

Vessel property is by law assessed at only half its value, and is taxable at the place where the owner resides or has his place of business. But there is no doubt that considerable shipping has escaped taxation altogether in some places. Upon the written application of all the owners, a vessel may be registered away from home, in a district where none of the owners reside. In that way the property escapes assessment and taxation in some cases. I am informed that a very large proportion of the shipping owned in Halifax escapes taxation altogether. In the smaller ports, where the assessors personally know more about the property and affairs of their neighbors and townsmen, such property is more likely to be on the assessors' books; but, from the best information I can obtain, considerably less than one-half of the vessel property owned in Nova Scotia is taxed. An intelligent correspondent in a distant part of the province, who is interested in shipping, expresses the opinion that in his district vessel property is not assessed at over one-fourth, or at most one-third, of its value. In one ship-owning town the practice of the assessors has been to make a reduction each year of 10 per cent. on the assessed valuation of the year preceding. For example, a new vessel costing $10,000 would be assessed $5,000 for taxation purposes the first year, $4,500 the second year, $4,050 the third year, and so on.

From the fact that the law of the province limits the assessment of vessel property to one-half its actual value, it is evident that the people of Nova Scotia are disposed to favor this class of property and encourage the building and owning of shipping. The relief from full taxation thus granted is in the nature of a subsidy, and might be a useful hint to our people in the States who are making efforts to stimulate our ship-builders and revive our commerce.

The rate of taxation varies in different places, and somewhat in different years. In the city of Halifax for 1889 the rate was $1.24 on $100; in Lunenburg it was $1.10; in Maitland, 96 cents; in Windsor, 66⅔ cents; and in Yarmouth, 75 cents.

COST OF SHIP STORES.

In this connection a statement of the prices of ship stores at the port of Halifax may be interesting. A leading dealer has furnished the following list of the present prices of the principal articles:

Articles.	Price.	Articles.	Price.
Beef in bond..........per barrel...	$8.00	Coffee:	
Pork in bond..........do......	11.50	Canned..........per case...	$5.00
Molasses in bond..........per gallon...	.35	Roasted and ground.......per pound...	.30
Lard in bond..........per pound...	.09¼	Tea..........do......	.30
Butter..........do......	.22	Cream of tartar..........do......	.36
Flour..........per barrel...	4.90	Currants..........do......	.08
Sugar..........per pound...	.05½	Pilot bread (No. 1 F.)..........per barrel...	2.90
Brown sugar..........do......	.04	Soap..........per pound...	.04
Beans..........per bushel...	1.85	Salt..........per bushel...	1.75
Round peas..........per barrel...	3.50	Pepper..........per pound...	.25
Rice..........per pound...	.04	Matches..........per gross...	.40
Raisins..........do......	.06¾	Oil..........per case...	2.85

WAKEFIELD G. FRYE,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Halifax, February 15, 1890.

THE AMERICAN AND BRAZILIAN REPUBLICS.

REPORT BY CONSUL BURKE, OF BAHIA.

On the morning of the 23d I received an invitation to be present at 1 o'clock p. m. to witness the inauguration of Dr. Victoriano Pereira as governor of the state of Bahia. There was a large concourse of people at Praço do Palacio at the hour appointed. The troops were there, as on the former occasion. The bands played the "Marseillaise."

Having received on the 21st, from Consul-General Dockery, instructions to maintain diplomatic relations with the provisional Government, of course, I accepted the invitation to be present at the inauguration of Dr. Pereira as governor of the state of Bahia. The doctor, kneeling, took the oath of office, administered by the president of the "Camara Municipal." To the large audience in and about the palace building and in Praço do Palacio he delivered his inaugural address in a forcible, impressive, and enthusiastic manner. He spoke of the "passing away of the Empire and the establishing of the Republic, now accepted and indorsed as declared by the provisional Government by every province in Brazil. 'If wise counsels prevail, the Republic of the United States of Brazil should become to South America what the powerful Republic of the United States—that should be our model and example—is to North America."

The address was well received by the people. I have to say, too, that the American consul was treated with the greatest deference and respect, having the honor of walking upon the left of the governor to the palace where the inauguration took place from the general assembly room in an adjoining building. Whenever there was any allusion made to the United States in the inaugural, "vivas" were given for "Estados Unides á America do Norte," and for "consul Americano." Every detail pertaining to the inauguration passed off in perfect order.

On the 24th the parade of the troops (foot-soldiers and cavalry), the medical students, custom-house employés of the state government, and many civilians took place. The request was made through the press two days before to have the people resident along the line of march decorate their houses with flags, flowers, bunting, etc., and to illumine at night in honor of the Republic.

The American consul was standing on the balcony of a house where resided a gentleman, formerly a monarchist and a slaveholder, but now a republican, or at least in favor of the Republic. His house was beautifully decorated—the French flag on one side, the flag of the Oriental on the other, while the Stars and Stripes floated between.

As the procession came on down the street the governor-elect, in glancing from side to side of the street, beheld the American flag, and, standing beneath its ample folds, the American consul. At once bringing his horse to a halt, removing his hat, and extending his hand, the governor exclaimed: "Viva a republica dos Estados Unidos á America do Norte!" "Viva!" shouted the staff and those in the procession close by. The consul respectfully acknowledged the salutation of the governor, and sent back "Viva a republica dos Estados Unidos do Brazil á America do Sul!" Numerous "vivas" greeted our flag till the last of the procession passed by.

On the 25th I had the honor of a call from the governor and his secretary. He expressed himself as very much pleased and greatly honored, officially and personally, that the representative of the United States Government was present at his inauguration, and he hoped the United States of Brazil would receive the warm sympathy and the moral support of the great Republic of North America. I assured His Excellency that the step already taken by the Government I had the honor to represent in recognizing the provisional Government was a sufficient guaranty that the United States viewed the change as most favorable for the Brazilian nation and for the people of Brazil, and would continue to give its sympathy and moral support to the new-born Republic in the efforts of its leaders to build it up wisely and well, and render it strong, stable, and progressive. I expressed the hope to His Excellency that the change would bring us nearer together, unify the interests of both republics in such a manner as to increase the moral and material prosperity of each.

DAVID N. BURKE,
Consul.

UNITED STATES CONSULATE,
Bahia, November 28, 1889.

A NEW PROCESS IN GLASS MANUFACTURE.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

In the manufacture of glass a new and important improvement has been recently reported. It is believed that a complete revolution in the manufacturing methods must take place. Formerly panes and plates of glass were produced by blowing large hollow cylinders, which were afterwards cut and pressed. The blowing process, so tiresome and unhealthy to workmen, is to be entirely done away with. The glass manufacturer Simon has a new process, by which the tough glass may be run through rolls and made flat, smooth, and of any width and length. The plate-glass so produced is distinguished by greater homogeneity, firmness, toughness, and clearness; besides the surfaces receive a brilliancy of finish little less beautiful than the finest cut glass. The essential part of the new system consists in the use of peculiarly formed waved hollow metal rolls, which are heated from the inside by means of steam or gas. These rolls take the tough liquid glass direct from the melting pot and run it out into long sheets like those of tin or sheet-iron. To avoid sticking of the glass to the rolls the latter are covered with a thin coating of coal dust, oil, and wax. When one considers the marvelous increase in the demand for sheet and plate glass, and that its former production was at the cost of much money and the health of employés, the present discovery must be regarded as of great importance. It is expected to reduce the cost of production, and consequently the selling price, very materially.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, December 18, 1889.

NEW PROCESS OF SILK SPINNING AND THROWING.

REPORT BY CONSUL WILLIAMS, OF ROUEN.

My attention was directed some time since to a new process for silk spinning and silk throwing, for which the son of the inventor was about to take out a patent in the United States. The inventor of this machine appears to have had a practical knowledge of silk manufacture, and devoted many years to efforts to simplify and unite in one process the silk spinning and silk throwing.

The chamber of commerce at Lyons placed at his disposal a building for his machines, together with the requisite power to work them. The installation of these machines in this model workshop was prevented by the death of the inventor. His son, Alfred Tastevin, editor of a journal at Rouen, as his heir, is now desirous of introducing to the public this machine for silk manufacture, to which his father devoted the best years of his life, and the perfection of which he claims to have obtained just before his death. Having examined the system, I submitted the same to more competent judges, among others, to Mr. Powell, my vice-consul, who is a practical engineer, who gave it as his impression that the machine was ingenious and worthy of the attention of silk manufacturers.

The opinions expressed by leading journals recognized as authoritative by silk manufacturers in regard to the experimental tests of this machine, and also to the capacity of its inventor, corroborated the views of those who examined the theory and designs of the mechanism.

The claims and advantages of this machine may be briefly stated as follows:

THE THROWING-MACHINE.

Before explaining the silk spinning and throwing by a single machine, I would refer to the throwing-machine performing three operations. It is claimed that this machine realizes all that is expected from it in the way of silk throwing. For manufacturers who prefer twisting, without silk spinning, and for those who prefer having two different machines—one for spinning and the other for silk throwing—there is furnished a throwing-machine whereby the thread undergoes the three operations—throwing, gathering, and twisting—at the same time. These operations usually require three machines. The throwing-machine, consequently, does three times more work than an ordinary throwing-machine. It neither takes more space nor costs more than the ordinary throwing-machine alone.

The advantages claimed for the throwing-machine are that it performs alone the work of three throwing-machines, thus saving (1) two handlings, (2) less waste, (3) two-thirds of time required to remain in the mill, (4) the reduction of the power movement, (5) the reduction of space required and diminution of expense of construction on account of concentration of work upon a single machine.

The twisting of silk threads is mathematically regular.

SPINNING AND THROWING.

To transform the cocoon into silk and give the thread finished to the dyer five machines are actually employed, that is to say: (1) The spinning-wheel, to pull the silk out of the cocoon (the silk compressed in the basin lies, in the form of a skein, on a wheel); (2) the winding-machine, to put the skeins on spools; (3) the silk-throwing machine, for twisting each silk thread separately; (4) the gathering-machine, for collecting several threads; (5) the twisting-machine, for twisting the threads together.

For the erection of these five machines two separate quarters or buildings are actually employed, that is to say, a spinning-mill and a silk-throwing mill. From time immemorial these five machines have been used, notwithstanding certain improvements which they have undergone; they are very expensive and require much space.

This invention proposes to do away entirely with the ancient plant, a single machine being substituted for the five now required.

The spinning and throwing machine spins, or pulls the silk out of the cocoon, throws, or twists each thread separately, gathers these silk threads together, and finally twists them all into one thread.

Without entering into a minute description of the mechanism of this machine, I can only say that it is claimed by this system that the silk, passing simply out of the basin, on a spool, and from this spool on to another, has undergone all the operations necessary for its transformation.

On the whole, this single machine performs all the various operations of the five usual machines now in use. It may be said that the single machine is consequently complicated and expensive. The leading silk journal of Lyons says:

> It appears that to perform these numerous and diverse operations the mechanism ought to be very complicated. Not at all. The machine is extremely simple and occupies a very small space.

The claim for simplicity and economy of construction seems to be well founded. The exact cost of the machine can not be accurately computed at present, but its simplicity indicates that it can be cheaply constructed.

The patent not having been yet secured in the United States, I could not obtain permission to copy the drawings and descriptions of the process.

These details are promised to me at a later date. The advantages in the economy regarding breakage of threads by this continuity and automatic arrangement of the machine, etc., are so evident that they do not require to be enlarged upon. The vital question is, can this machine perform its several functions with the accuracy and celerity to which its inventor and owner lays claim? Should this necessarily incomplete outline of the machine and process favorably impress silk manufacturers, I will furnish more minute details as soon as circumstances will permit.

CHAS. P. WILLIAMS,
Consul.

UNITED STATES CONSULATE.
Rouen, March 5, 1890.

THE GERMAN ALBUM INDUSTRY.

REPORT BY CONSUL-GENERAL EDWARDS, OF BERLIN.

The value as well as the volume of the album exports from Berlin to the United States increased rapidly during the quarter ended December 31, 1889.

The statistical tables which I subjoin give a correct representation of the course of the growth of the album industry of Berlin during the period from 1870–'90.

Prior to the year 1870 the album industry of this city did not constitute a separate industry, but was mixed up with the manufacturing of leather articles. During the year 1870 it was firmly established as a separate and distinct industry.

Table showing the number of factories and employés.

Year.	Number of factories.	Number of employés.
1870	26	880
1880	48	1,450
1890	75	2,060

At the present time the smallest factories employ from ten to thirty persons; the largest factories employ from thirty to fifty persons.

There are but two factories using steam-power for cutting and pressing.

The following table shows the value of the entire product during the years 1870, 1880, and 1890:

	Marks.*
1870	3,000,000 to 3,500,000
1880	5,000,000 to 6,000,000
1890	9,000,000 to 10,000,000

The work is mostly done in the factories and is paid for by the piece; there is some house work, by girls, in the way of fastening the leaves.

The factory employés work from ten to eleven hours; overwork is paid for by the piece under special agreement.

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* 1 mark=23.8 cents.

Average weekly wages earned (*piece-work*).

Workmen.	Lowest.	Middle.	Highest.
	Marks.	*Marks.*	*Marks.*
1870-'78:			
Overseer	38	42	60
Gold edge maker	34	42	54
Binder	23	30	35
Workmen	20	22	25
Women	10	14	19
Boys	8	10	12
Girls	7	9	10
1878-'85:			
Overseer	40	45	65
Gold edge maker	36	40	51
Binder	25	32	37
Workmen	22	25	28
Women	12	16	22
Boys	9	12	15
Girls	7	10	12
1885-'90:			
Overseer	45	60	72
Gold edge maker	40	52	65
Binder	28	36	40
Workmen	24	28	30
Women	14	18	25
Boys	10	12	15
Girls	7	10	12

These tables show that wages increased about 15 per cent. between 1870 and 1885; since 1885 wages are said to have been stationary.

The highest wages are paid in the spring, the lowest in the winter.

RAW MATERIAL.

The raw material is obtained from the following sources:

Leather.—The leather is purchased in Mayence, Frankfort-on-the-Main, Offenbach, Charlottenburg, near Berlin, and some very fine kid leather comes from France.

Paper.—All kinds of fancy paper for coverings are purchased at Aschaffenburg; plain and marbled paper for the inside is purchased in Berlin and this vicinity.

Pasteboard.—The pasteboard is purchased in Berlin and vicinity, and at Cöslin (Pomerania).

Velvet and plush.—The ordinary and medium qualities are purchased in Crefeld, Gladbach, and Linden, near Hanover. The finest, in silk, comes from England.

Locks and mouldings.—The ordinary and medium qualities are purchased in and about Berlin; the finest come from Vienna.

GENERAL OBSERVATIONS.

Part of the increased value of the exports during the quarter ended December 31, 1889, is due to the increased demand in the United States for leather albums.

The album industry is certainly very remunerative, as the entire plant of the seventy-five factories in Berlin is said to be kept fully employed.

The best customers at present are the United States and England. It is represented to me that Austria, France, and Russia are almost entirely lost for the German album trade, on account of the high duties. Since the year 1888 the United States has imported at least one-third of the entire product of the Berlin factories.

W. H. EDWARDS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, February 14, 1890.

HOW TO ENLARGE OUR EXPORT TRADE.

REPORT BY CONSULAR AGENT NEUER, OF GERA.

The fact that in the year 1888 the imports exceeded the exports of Germany, and that during the past year the balance of trade was also against this country, forms the subject of continual comments in German commercial papers, thereby experiencing various judgments and giving occasion to numerous advices.

Among the chaos of considerations, opinions, advices, and judgments there are especially two views taking the precedence and being worthy of mention.

According to one of them, it is believed that exportations could only be extended and brought to a higher level through large export houses or export companies, while, on the other hand, an improvement is solely expected from a direct intercourse of the manufacturer with the foreign dealer.

The advocates of the first opinion hold that the producer should sell to none but the exporter, and it ought to be left to the latter to acquire customers in foreign lands, to acquaint the manufacturer with the needs, tastes, and habits there, and to take upon himself the speculative part of the business. It is argued that through this division of fabrication and sale, as is extensively the case in England, transmarine exportations could be promoted to a great degree.

Contrary to this view, it is stated that the establishment of large export companies would subject the manufacturer to a state of dependency, which might be abused by the former; moreover, it is set forth that though it would not be without difficulty for the producer, while not neglecting the home market, to look abroad for business, the once-procured foreign market would, if exclusively in the possession and under the control of the manufacturer, prove more profitable than an indirect trade. For these reasons many manufacturers are averse to the establishment of export companies, and perhaps it is to be attributed to this circumstance that the recent and frequent projects of this kind were not realized in such a manner as has been desired and expected.

For the interest of our producers I have given the matter my attention, and submit the following as the result of my inquiries and observations. Accordingly there can be no doubt that both opinions are to be shared with certain limitations, and, as is so often the case, the golden mean has to be chosen.

The advantages proceeding from a direct communication of the large manufacturer with the foreign buyer are just as unmistakable as the proper procedure of the small producer is based upon the agency of able and reliable export houses in order to have his fabrics sold in transmarine markets.

Experienced German merchants have found out this to be the only correct way, stating that a successful trade is not to be done on a small scale, and a real benefit is but to be derived from great quantities. Small shipments are subject to such disproportionally high charges as to yield generally little or no profit.

Hence I would suggest to our manufacturers the adoption of the same methods, in order to do a remunerative export trade.

In the value of exportations Germany ranks second, which I think sufficient reason to follow the example of her business men in their efforts to enter foreign markets, so that we may also obtain our share of the world's patronage.

Our manufactures are such as to deserve the highest credit, and I do not see any reason why they should not gain a stronger foot-hold abroad, if proper steps are taken toward that end.

CHARLES NEUER,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Gera, January 28, 1890.

AMERICAN LARD IN GERMANY.

REPORT BY CONSUL FAY, OF STETTIN.

I beg to inclose herewith a clipping from an agricultural journal printed in this neighborhood relative to the adulteration of American lard.

It appears, since the report was circulated to the effect that the law in regard to the prohibition of American pork was to be modified or repealed under certain circumstances, that there is and has been a great deal of comment, both favorable and unfavorable to the proposition. The agricultural classes, as might be expected, are energetically clamoring against such an "unwarrantable measure," as they style it. The argument is used that if we export adulterated lard we would, in like manner, deceive people in pork. The following is a translation of the inclosure:

As we have already made reference last year to this subject, we again quote the following: "According to the Revue Internationale des Falsifications, the adulteration of lard in North America is expanding to horrible proportions. Formerly they restricted themselves to mixing

15 to 20 per cent. of water with the lard, and thus sold water at lard prices. Now they place lard made from cheap cotton-seed oil with a sufficient quantity of stearine to form the same consistency as pure lard. According to the English chemist Doctor Hehner, 35 per cent. of the lard product of America, viz, 2,700,000 cwt. is adulterated. The house of Armour & Co. produces yearly 270,000 cwt., and uses thereto 120,000 cwt. of cotton-seed oil with 30,000 cwt. of stearine. The lard is then sold under the beautified name of 'pure, refined lard.' A health commission in a canton in Switzerland has given especial attention to the subject and confirmed the results before mentioned of this extraordinary percentage of adulteration.

"In accordance with this state of affairs the chemist, Doctor Ambuhl, suggests that the State authorities should, without delay, either prohibit the importation or place such a high duty thereon that the lard would soon disappear from the markets."

ANDREW F. FAY,
Consul.

UNITED STATES CONSULATE,
Stettin, February 10, 1890.

AMERICAN MANUFACTURES IN SPAIN.

REPORT BY CONSUL TURNER, OF CADIZ.

I. AGRICULTURAL MACHINERY.

My belief that Spain is an excellent market for the introduction of American farm machinery is unbounded. The prosperity sure to follow the use of modern implements and methods can not be fully appreciated by people unacquainted with the conditions that exist here. There can be no doubt that improved tools would prove a leading force in dissipating the depression that has caused so many Spanish farmers to seek new homes in South America. If a picture of the parable of the sower illustrates seed-time on one farm, and a prancing team hitched to a modern seeder illustrates it on another, the difference in the amounts produced by the farms will be apparent. The self-binding harvester and headers of the United States, that cut, thresh, and leave the cleaned grain upon the new-made stubble, indicate the centuries that have passed since Ruth and Boaz cut "corn" with the biblical reaping-hook, yet, if Ruth and Boaz were dropped into any of a majority of Spanish harvest fields they would feel perfectly at home, for the implements they worked with are still in use. Following another ancient custom, farmers keep brood-mares for treading out or threshing grain. The grain is separated from the chaff and dirt by being tossed into the air with shovels on windy days. It is needless to say that this process does not make it clean. In seasons of little wind the grain, being unhoused until winnowed, is often injured or destroyed by unlooked-for rains. Fanning-mills, I think, could be easily introduced.

It does not require continued study to understand the advantages that would come to the farmer whose plow is a crooked stick if he could be persuaded to adopt modern methods and taught to appreciate the tools and appliances that have received, in their perfecting, a large share of the mechanical skill and inventive genius of the United States. Neither is it difficult to see how utterly impossible it will be for those who refuse these and similar improvements to compete with others who accept them.

Spain has thousands of untilled acres, besides many farms that are tilled at a loss, to say nothing of a large acreage that, on account of the methods used, does not yield more than 40 per cent. of its capacity. This land could be made to yield its full capacity, and the untilled plains and unremunerative farms be made as productive as American farm implements have made that garden of the world which thirty years ago was mapped out and known to our school-children as the Great American Desert.

In the last few years the introduction of improved agricultural implements has commenced. By many they are regarded as enemies of labor, and farmers who realize the advantages of improved tools sometimes refuse to buy them, fearing their destruction by farm laborers who oppose the introduction of labor-saving machinery.

At Jerez de la Frontera, a city of 60,000 inhabitants, surrounded by one of the richest agricultural countries in Spain, there is but one dealer in farm implements, and his principal business is the wine trade.

English and German tools take the lead. These countries have placed a full line of their implements on sale, while our large assortment is represented by only a harvester and cultivator, manufactured by a New York manufacturer. Plows, harrows, etc., are finding a fair market, the English having the lead, for although the German tools are cheaper they are considered much inferior to the English in utility and durability. Were ours represented, farmers would discover a like difference in our favor over the English. The English firm whose goods are most in use commenced by establishing an agency, where their implements were shown to farmers and sold on commission. The German firms employed the same course and agent. The agent exhibits the implements at fairs and like gatherings, doing all in his power to bring about a popular appreciation of their merits. That he is meeting with success is proven by the fact that this year he does not handle the smaller implements on commission, but buys and sells them on his own account and risk. He thought he would be doing an "injustice to himself," were he to let the Department know the cost price of the implements he handles and the prices at which he sells them. Neither would he give Mr. Hall, our consular agent, any information concerning the commission paid by his principals.

Dealers fear competition, and are very reticent, as the following correspondence from Consular Agent S. B. Caldwell, of Seville, will show.

Mr. Caldwell writes:

> On the 2d instant I sent by mail a copy of your letter to Mr. Francis Trotter, requesting him to send me answers to your questions as soon as convenient. He is the only dealer in American agricultural implements, and, indeed, the principal one for all other countries. His answer, received to-day, I inclose herewith.

The following letter is the answer referred to:

SEVILLE, *November 26, 1889.*

MY DEAR SIR: Your favor of 2d instant was delivered here the same day, but I have been so busy, and away on several short journeys, that you have found it necessary to write me a reminder to-day that I have omitted to reply. I am sorry to have kept you so long, but really some of your questions are what I consider of a private nature, and as such I would rather decline to answer them.

I sell here steam threshing-machines, reapers, binders, plows, harrows, maize shellers, kibbling-mills, drills, and every thing, in fact, that people inquire after or that I think there is a sale for, buying the different articles in different countries, wherever the market is most favorable, and sell for what the things will fetch.

My reapers, binders, drills, and some harrows, as well as maize shellers and corn and cob mills, all come direct from the United States. Trusting this information will suffice,

I remain, dear sir, yours faithfully,

FRANCIS TROTTER.

S. B. CALDWELL, Esq.

In closing his letter Mr. Caldwell observes:

If Americans wish to get the trade of Spain, they must send over intelligent, educated men, who can speak and understand the Spanish language. They must also remember that they can not rush things. To attempt to do so would be to defeat the end in view. It is simply not the way of this country, and commercial travelers have to learn, sooner or later, that they must exercise an immense amount of patience and become accustomed to a great deal of "mañana" (to-morrow).

Germany sends representatives who not only speak Spanish, but French and English; men of cultivated manners and general information, whose patience outlasts all delays.

Germans also give long credits; Americans must do the same.

I am fully convinced that Mr. Caldwell is right, and I do not hesitate to add that so long as correspondence is solely relied upon to build up trade just so long will our dealers make few and unimportant sales.

A federation of manufacturers of agricultural implements could easily find ways and means to reach, build up, and control this market, if only made to realize the future of the demand that now exists in an embryonic condition, waiting to be fully matured by England, Germany, or the United States. There may be lines of business in which we can not profitably compete with the first-mentioned nations, but certainly the manufacture of farm implements is not one of them.

2. MISCELLANEOUS ARTICLES.

Many articles from the United States find the markets of Spain, but they do not bring the two countries into closer commercial relations, for they are sold here by German, French, and English jobbers. In fact, more than half of all the American goods that are sold in Spain first pass through the hands of merchants of other European countries. A partial explanation of this is found in the system of long credits and the personal representation of the countries referred to.

One merchant in this city ("Bazar Norte Americano") commenced business by advertising to sell nothing but American goods. His stock includes every thing from a paper of pins to a piano. His intentions to sell nothing but American goods were sincere, no doubt, when he started, but as year succeeded year he gave way to the continual solicitations of German salesmen, who found it easy to compete with circulars and catalogues of a language not understood by the merchants, sent by firms 3,500 miles distant, who had in Spain no other medium of representation. At present this merchant carries but few American goods; he has not, however, changed his plan of advertising, because American goods are well liked by the people. I once heard him say to a lady to whom he was selling a German lamp: "Es Americano todos effectos los buenos que viene de los Estados Unidos" ("It is American; all articles are good that come from the United States.") It made me happy to hear my country so well spoken of, even if Germany did get the benefit.

The people have great faith in the superiority of American goods. When I first came to Cadiz, a peasant woman traveled a distance of 14 miles, reaching the consulate after it had closed. She stayed all night, visited the consulate in the morning, and asked for a box of American pills. After being assured she was not in a drug store, she explained that her physician had told her to go to the American consul and she would not be given adulterated pills that were sold as the American product. She left the office greatly disappointed because we had no pills on sale. In about an hour she returned, and exhibited a box of pills prepared by a New York firm. She had bought them of a druggist who carries quite a stock of American patent medicines. After being assured they were genuine, she went away satisfied. This is but one instance of many that might be related illustrating a preference for our goods. Then, too, the press of Spain is generally friendly. The daily papers commend our inventions and give much space to accounts of our great enterprises, wealth, industry, and power. All these things make one feel that sight should not be lost of the mother country while we are strengthening the ties of commercial and national friendship with her children, our neighbors.

In reply to a letter, Consular Agent Hall said:

> From experience in this country, I am sure that American articles of kinds unlimited would find a ready market here if properly represented by men knowing the country and people.

This, too, I indorse; for I am confident there are a thousand "Yankee inventions" that would be highly appreciated by a public that has few inventors the offsprings of whose genius would be forced to compete with the many things that have entered into and made pleasant all avenues of American labor.

The following American goods come to this consular district from other European countries: Patent medicines and drugs of all kinds; a preparation of codliver-oil and a New York panacea are extensively sold; toilet articles, the sales of Florida water being exceptionally large; enameled ware, firearms, cutlery, clocks, lamps, and notions too numerous to mention, mostly from Meriden, Conn.; hams, side, and canned meats from Chicago and

Cincinnati; cove oysters from Baltimore, and canned salmon from the Pacific coast. The prices at which these articles sell will average their retail prices in the United States multiplied by four. Pound cans of meat from the Armour Packing Company, of Chicago, sell in Cadiz for 40 cents each. Were trade direct between Spain and the United States, the prices of these articles could be greatly lowered and their consumption largely increased.

The railroads and coasting craft which radiate from Cadiz make it a trade center that should send commercial travelers into all parts of Spain to supply it with goods and gather its surplus product for transportation. A branch house of American jobbers could interest local capital, with profit to all concerned, in carrying out such an idea. Such an institution could wholesale all the goods that now come here from the United States directly and indirectly, besides hundreds of others that need only to be shown to be sold. An undertaking of this kind, in addition to being profitable, would build up regular and direct communication between the two countries. I have heard merchants of this city express a willingness to invest in such an enterprise if Americans would take the initiatory steps. Their unwillingness to take the lead will not seem strange when it is remembered that nearly all the great enterprises of Spain have been started by the organizing force of other countries. Witnesses to this statement are the mining companies of the English, the railroad and steam-ship lines of the French, and numerous water and gas supply companies, etc. When Americans take the initiative in developing the commercial relations of the two countries, they will find plenty of individual Spanish co-operation.

ROBERT W. TURNER,
Consul.

UNITED STATES CONSULATE,
Cadiz, January 16, 1890.

Steam-ship subsidy for Tobago.— Under date of January 4, 1890, Consular Agent Keens, of Tobago, British West Indies, reports that the Government of that island has voted to the direct line of steamers running between New York, Trinidad, and Tobago a subsidy of $2,400 per annum from January 1, 1890, for the purpose of conveying fruit and other products of the island to the markets of the United States. This subsidy is, however, subject to certain conditions, to be complied with by this line of steamers before any contract will be entered into, which are, viz: "That the steamers shall give greater facility to this island than now proposed by them by calling at out-bays around the breast of this island to enable shippers of fruit, etc., to export their produce more conveniently, and that Tobago be their last port of call before proceeding to New York." If these conditions are complied with, the resources of this island will be greatly opened up and the fruit trade with the United States encouraged.

AGRICULTURAL IMPLEMENTS IN SCOTLAND.

REPORT BY CONSUL BROWN, OF GLASGOW.

PRICE-CURRENT OF GLASGOW.

I have the honor to submit the following price-current of all articles of merchandise, save one, including those of the farm, the garden, and the orchard, imported through the port of Glasgow, Scotland. The article omitted is canned goods, which comprises so great variety, quality, and price as to be practically impossible to obtain. Prices are given in American money, being reduced from sterling quotations obtained.

Articles.	Unit.	Price.
Clover-seed	Bushel of 60 pounds	$4.38 to $10.56
Lumber	Cubic foot	.48 to .60
Staves	1,200 pieces	48.00 to 63.25
Apples	Barrel of 140 pounds	2.92 to 4.86
Canned meat	Pound	.08 to .10
Oil cakes	Ton	29.20 to 31.60
Tobacco*	Pound	.07 to .32
Shoe pegs	Barrel	2.92 to 3.89
Resin	Ton	19.50 to 43.75
Tallow	Hundred-weight	6.07
Leather	Pound	.10 to .24
Hams	Hundred-weight	9.73 to 12.16
Salt pork	Barrel of 200 pounds	12.16
Bacon	Hundred-weight	7.30 to 8.50
Lard	do	4.86 to 7.65
Cheese	do	10.21 to 12.65
Butter	do	15.80 to 23.11
Oatmeal	Sack of 280 pounds	5.83 to 6.31
Flour	do	3.77 to 8.00
Indian corn	do	2.88 to 2.92
Wheat:		
Hard Duluth	240 pounds	4.56 to 4.78
American (winter)	do	4.00 to 4.13
Live sheep	Head	9.73
Live cattle	do	97.00
Do	Hundred-weight	14.60
Beef	Pound	.11
Oats	Sack of 264 pounds	3.16 to 3.65

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* Import duty, 85 cents.

AGRICULTURAL IMPLEMENTS.

Upon the character of implements in use, I submit the following:

Plows.—Plows for the most part are of Scotch make, of single furrow and of single wheels. Within the last few years, however, a great number of American Oliver chilled plows have come into use, and on light soil they are likely to be much more extensively used now that they are becoming better known. They are well adapted for spring work, but as yet public opinion (farmers') is against their use in the fall of the year. They are of lighter make than any of the English or Scotch plows, and of much lighter draught.

Double-shovel plows are but little used and are far from being popular. Several English and Scotch makes are in the market.

Riding plows for forming ridges or drills for potatoes, turnips, etc., are of Scotch or English make of similar pattern, having adjustable mold-boards.

Harrows.—Harrows of the old iron zigzag form are universally used. Each harrow has four beams and twenty teeth, and are commonly made up in sets of three. They are all of Scotch or English make.

Chain harrows are used in a limited way, and are recommended for gathering weeds, dressing grass-lands, etc., while saddle (hinged) harrows are used for reducing and pulverizing the ridges of green crops.

Drill harrows, generally of five tines or teeth, are used in the cultivation of green growing crops.

Cultivators.—Grubbers or cultivators are all of Scotch manufacture. Tennant's, mounted on three wheels, is acknowledged to be the best and is in general use.

Seed-drills.—Seed-drills and sowing-machines, mostly of English make, are coming into general use, the broadcast sowing-machine being now largely used for grass-seed, turnip-seed, etc.

Rollers.—Rollers are of Scotch make generally, and made of iron throughout; stone and wood, formerly used, are fast giving place to the iron.

Mowing-machines.—Walter A. Wood's American machines are perhaps as largely used as any, and it is the only American machine that has kept its hold against English and Scotch machines.

Reapers.—Wood's reapers are the only ones of American manufacture, but, I am told, are not so highly appreciated as the mowing-machine. The favorite makes are of Scotch and English manufacture. The favorite style of reapers is the self back delivery.

Binders.—Wood's American is most in use as yet, but other American makes are well spoken of. The Massy & Co. Toronto binder, it is claimed, is making considerable headway. There are several English manufactures and one Scotch manufacture. The latter is said to be rapidly gaining in favor.

Hay-rakes.—Hay-rakes and hay-makers are mostly of English make, although a goodly number of American are to be seen. Of those manufactured in the United States there does not appear to be any special preference. The patent American revolving wooden rake, formerly quite popular, is not now much used. Hay-makers (Zedder's) have not come into general use. Howard's "Bedford" is said to be the best machine in the market.

Turnip machines.—Turnip topping and tailing machines, all of Scotch manufacture, are extensively used, though their use is not by any means general.

Barn machines.—Threshing is now mostly done by steam-power, traction engines being used; threshers, all of English make, cleaning and separating the grain very much like the American pattern. The old-fashioned non-separating machines and the flail are, however, still in use in a limited way by the small farmers. Of the minor barn machinery in use I may include the following: Fanners or corn (wheat) dressing machines, grist or grinding mills, chaff (straw) cutters, oil-cake breakers, root slicer, and pulper and root washer—all made to be worked by hand or power to suit different sized holdings. These are all manufactured in England and Scotland.

As to the character and extent of agricultural and horticultural pursuits in this consular district, I may say that agriculture is economically and successfully carried on in the raising of grain, except corn and root-crops, such as potatoes and turnips (both largely grown), carrots, parsnips, etc.

FRUIT.

Fruit is not raised here except in a limited way. Apples are, however, grown with some success, while grapes, etc., can only be matured under glass.

L. W. BROWN,
Consul.

UNITED STATES CONSULATE,
Glasgow, January 24, 1890.

GERMAN-AFRICAN STEAM COMMUNICATION.

REPORT BY CONSUL JOHNSON, OF HAMBURG.

On February 1, 1890, the German Reichstag passed a law which will give Germany its second regular line of steamers subsidized by the Imperial Government. The steamers, which are to have a minimum tonnage of 2,000 registered tons and a speed of at least 10½ knots per hour, are to run once every four weeks from a German port to the east coast of Africa and back, touching at a Belgian or Dutch port both outward and homeward bound. A translation of this law and appendix is hereto attached. In conformity with section 1, the chancellor, immediately after the passing of the law, sent copies of the same to four prominent steam-ship lines of Hamburg, and most likely to those at Bremen also, at the same time requesting the respective companies to hand in their bids, if they desired to make any, by February 28, 1890. I have been unable to ascertain whether any other companies in other ports have been asked to enter into the competition, but doubt it, as Hamburg and Bremen are the only German ports likely to receive consideration. The four Hamburg companies referred to above were the Hamburg-Amerikanische Packetfahrt Actien Gesellschaft, Hamburg-Südamerikanische Dampfschiffahrt Gesellschaft, Afrikanische Dampfschiff Gesellschaft (Woermann line), and Pacific Linie. In Bremen it will probably be the North German Lloyd alone.

The first two companies declined to hand in any bid, they having no interest in the African trade, and their business being with North and South America only. Mr. Woermann, of the African Steam-ship Company, has, as I have been told, together with a very wealthy ship-owner by the name of Laeisz, handed in a bid, and is the most likely party to get the contract, especially as he is acquainted with the African continent and its trade. The steamers of his line ply between Hamburg and the west coast of Africa, so that, if he should get the contract, he would practically have control of the shipping between Germany and Africa.

Mr. A. Kirsten, proprietor of the Pacific Line, has also applied for the subsidy, but is not likely to get it. In my opinion, it lies between Mr. Woermann and the North German Lloyd, with the chances in favor of the former, especially as Bremen already has a subsidized line (to Australia) and the bulk of the African shipping lies in the hands of Hamburg parties.

The main object of the German Government in subsidizing such a line is undoubtedly to furnish a regular and direct communication with her East African colonies, thus forming an outlet for the products of this unopened country and rendering the work of colonization easier. Besides, such a line will, undoubtedly, in time become the carrier for large quantities of German wares and merchandise. It will serve the Government for the transportation of troops, arms, ammunition, and supplies.

Whether such a line is going to pay or not it is difficult to say. From the very fact that a subsidy is necessary, it is probable that for some years to come it will not, particularly as the maximum to be allowed by the Government is only about $215,000 per annum. However, there is no reason to believe that it should not flourish in time. The very lines that have been asked to hand in bids for the East African one are examples that trade follows the flag. The Hamburg-South American Steam-ship Company started business in 1871 with a few vessels only, and for years threatened to become a dead failure. The parties interested, however, did not lose their courage, and by dint of perseverance and hard work have obtained truly grand results. The company now owns about twenty-seven fine 2,000-ton boats, with a capital stock of only 3,750,000 marks ($900,000). In 1886 the company paid 10 per cent. in dividends, 12 per cent. in 1887, and 14 per cent. in 1888 and 1889. The vessels sail weekly, are full of freight when they leave, and full when they return, mostly coffee.

The Hamburg-Pacific line, founded in 1886 by Mr. A. Kirsten, started with four steamers and now has eight. It paid no dividend until last year, and then declared one of 10 per cent. The African Steam-ship Company, started a year sooner than the former, now owns ten steamers, has a capital of only 3,000,000 marks, and paid a dividend of 7½ per cent. last year. Their vessels sail at intervals of a fortnight. Now, when this African Steamship Company was started, the west coast was not so very much ahead of the east coast in development. The following table will clearly show what the African Steam-ship Company has done to build up trade on the west coast.

There were imported from the west coast into Hamburg alone—

	Marks.
1871–'75	3,991,000
1876–'80	5,720,000
1881–'85	10,461,000
1886	9,860,000
1887	12,354,000
1888	16,577,000

During this same period Hamburg's imports from the east coast of Africa were, as follows:

	Marks.
1871–'75	3,056,000
1876–'80	2,433,000
1881–'85	5,441,000
1886	4,112,000
1887	3,422,000
1888	5,150,000

As I have already stated, the African Steam-ship Company commenced business in 1885, and it will be seen from the former of the above two tables that in 1886 the value of imports was nearly as great in this one year as it was in the previous five years together. In 1888 it was nearly four and one-half times as great as from 1871 to 1875.

It will be seen that the imports from the east coast, although they have also increased from year to year, have by no means kept up with those from the west coast. In 1888, for instance, those from the west coast are over three times as great as those from the east coast.

As the products of both coasts are very similar, it is expected that the establishment of this new direct line of steamers will tend to build up trade on the east coast in the same ratio as on the west coast.

CHAS. F. JOHNSON,
Consul.

UNITED STATES CONSULATE,
Hamburg, March 17, 1890.

LAW REGARDING A MAIL STEAM-SHIP COMMUNICATION WITH EAST AFRICA.

[Inclosure in Consul Johnson's report.—Translation.]

SECTION 1. The chancellor is empowered to receive proposals or bids from appropriate German contractors for the establishment and maintenance of a regular communication by mail steam-ships between Germany and East Africa for a period up to ten years, and to grant from Government funds an amount not to exceed the sum of 900,000 marks per annum in aid of the enterprise.

SEC. 2. The contract mentioned in section 1 must contain the principal conditions given in the appendix, and requires the sanction of the federal council to be valid.

The contract, as well as the payments made on the strength of the same, are to be submitted to the Reichstag in the next rendering of accounts.

SEC. 3. The amount payable according to section 1 is to be taken from the treasury of the Empire.

APPENDIX.

(1) The voyages must be made in periods of four weeks at the longest. The chancellor will designate the ports to be touched. The speed of the vessels must be 10½ knots, average, at least.

(2) The contractors of the line (section 1) are bound to touch a Belgian or Dutch port, both going and coming.

(3) The vessels to be employed must be accepted by experts appointed by the chancellor. New steam-ships must be built in German yards according to plans agreed to by the chancellor.

(4) Analogous deductions will be made from the subsidy for unwarrantable delay in making the trips.

(5) The steamers fly the German mail flag and carry the mails and such persons as may accompany them without special compensation.

(6) The time for the commencement of the voyages will be agreed upon between the chancellor and the contractors. Should he (the chancellor), in order to accelerate the commencement, deem it advisable to permit the voyages to be made in other spaces of time than four weeks, the contractors are to receive therefor a compensation proportionate to the subsidy.

(7) As a guaranty for the fulfillment of the contract obligations, the contractors will, if necessary, be required to give a bond.

(8) Should the contractors derive larger and lasting profits from the enterprise, the Government may impose more extensive requirements, for instance, in regard to faster or more numerous trips, etc., or lessen the subsidy correspondingly.

OXIDE OF ZINC IN DRIED APPLES.

REPORT BY CONSUL JOHNSON, OF HAMBURG.

Some few days since my attention was called to a paragraph in one of the local papers which stated that a considerable quantity of American dried sliced apples had been declared to contain poison by the authorities of Kiel, and that further sale of the same had been stopped.

I made an inquiry into this matter, and the above report was confirmed. It appears that at the instigation of the Kiel police department, the chemical board of examiners from time to time makes examination of such provisions as are exhibited for sale by merchants and shop-keepers in the district. Through such investigations it was found that large quantities of American dried sliced apples contained oxide of zinc, free from water, in such proportions as to be pernicious to health. Upon these facts being reported to the chief state's attorney for the district of Kiel, this functionary caused to be published the inclosed opinion.

As advised in this document, the board of trade and the police department thereupon acquainted the parties interested with the contents of the same, at the same time giving orders to stop the sale of such apples. Most of the dealers still have these goods in stock now.

CHAS. F. JOHNSON,
Consul.

UNITED STATES CONSULATE,
Hamburg, December 24, 1889.

[Inclosure in Consul Johnson's report.—Translation.]

KIEL, *October 28, 1889.*

During the course of last summer a more or less considerable quantity of American dried sliced apples were seized in the stores of some high-standing firms at Kiel and smaller towns in the district of this court of justice, because a chemical examination of this merchandise had proved that the same contained oxide of zinc, free from water, in such quantities as to become pernicious to health, and thereby the law of May 14, 1879, regarding the trade in victuals, appeared to be violated. An inquiry was therefore ordered, in the course of which it transpired that this law did not apply to this special case, for the reason that, as far as the inland prosecution goes, no person can be charged with intentionally or negligently manufacturing or trading in dried sliced apples. In consequence, in all the cases that have hitherto come under my notice, it behooves the board of health to decide this matter, and not the court of justice.

For the future, therefore, I advise the following:

When it is stated that dried sliced apples of American origin appear to be regularly saturated with the aforesaid poison, and this fact is duly communicated or known to the parties concerned, all sellers of this class of merchandise are required, before completing the transaction, to assure themselves that the aforesaid merchandise is free from this poison. The omission of this duty would be treated as negligence punishable according to section 14 of the aforesaid law.

In the interest of commerce, I feel it my duty to recommend the board of trade to as quickly as possible make the parties concerned acquainted with my opinion, which is based on a verdict of the high court of justice (Reichsgericht), so that they can entirely insure themselves against prosecution, as well as other losses, by returning the merchandise to their contractors.

The Chief State's Attorney:
(Signed,) WAYBASCH.

To the Board of Trade at Kiel.

THE SAVINGS-BANK SYSTEM OF FRANKFORT.

REPORT BY CONSUL-GENERAL MASON.

Frankfort-on-the-Main is distinguished among European cities by the large average wealth of its citizens and by its exceptional prominence in all that relates to banking and finance. Not only have the great banking families had their origin in Frankfort, from which branches have been established at Paris, London, Vienna, and New York, but there are in this city to-day not less than two hundred banking houses, public and private, many of which are institutions with enormous capital and wide-reaching connections.

In a city of this character, which, until twenty years ago, had an independent municipal autonomy, it would naturally be expected that the savings-bank system would not only include some original features, but would embody in a high degree the best results of experience and competent management. This is apparently the case, and it is proposed in the present report to describe the organization and methods of this comprehensive and somewhat complex institution.

The Frankfort Savings-bank is a private corporation established under municipal authority nearly seventy years ago, when Frankfort was a free city, independent of all State allegiance and control. It is divided into three divisions or departments, to be hereinafter described in their order, as follows: (1) The Savings Deposit Bank (Sparkasse), which includes a central bureau and two branch offices in different quarters of the city; (2) the Ersparungs Anstalt, a separate bureau under the same management as the preceding, but differing from it in the fact that it collects from each depositor a stated weekly deposit; and (3) the Penny Savings Institution, which is a separate department of the Sparkasse, but adapted in its methods to the humblest class of depositors, whose earnings are limited to a few pennies per day or week. All these departments are parts of one comprehensive system, each with its own administrative officers, but all under control of one central board of directors, who constitute and represent what is known as the Polytechnic Association, a chartered corporation which has under its control, besides the savings-banks above mentioned, several other institutions, among which the more important are a blind asylum, a stenographic institute and an important industrial art school. The governing authority of the Polytechnic Association is vested in a president and board of directors, by whom are appointed the directors of the savings-bank in the several departments of that institution.

The Polytechnic Association was founded in June, 1816. It created and opened the savings-bank (Sparkasse) on the 12th of June, 1822. The Ersparungs Anstalt was founded in 1826, as an independent savings institution, with the special feature of collecting a specified weekly sum from each registered depositor. It remained independent until November, 1866, when, by a resolution of its managers, it was placed under the control of the savings-bank (Sparkasse) and became a special department of that institution. The third division, the Penny Savings-bank, was created in June, 1882, as a special bureau of the central savings-bank for the benefit of the humblest class of depositors. It remains to examine in order each of these three subdivisions or departments which collectively constitute the savings-bank system of this city.

I. THE SAVINGS-BANK PROPER (SPARKASSE).

This includes the central bureau at No. 49 Neue Mainzerstrasse and two branch offices, one of which is located at the eastern part of the city and the other in the industrial suburb of Sachsenhausen, on the opposite side of the river. The main office is open from 8 to 11 o'clock a. m. and from 3 to 5 p. m., but the branch offices are open only during the afternoon. Otherwise the regulations and management of the principal bank and its two branch offices are quite similar. Among the more important of their working regulations are the following: Deposits may be made in any sum from 1 mark (23.8 cents) to 2,000 marks, but not more than 5,000 may be deposited by the same person during one year. The maximum sum that is received on deposit from one person is 10,000 marks. Exceptions in which this limit is exceeded may be optionally authorized by the directors. The rate of interest paid on deposits may be changed by the board of directors, due notice of such action being given in the public press. The present rate is 3 per cent., and the interest on each deposit begins, not on the day when it is made, but on the first day of the month next following. Each depositor is furnished with a deposit book bearing simply a number and the seal of the bank and containing the regulations which concern depositors. In this all deposits made by the bearer are registered and the entry certified by signature of the cashier or his assistant, and therein, at the end of each year, the full account, with interest, is written up.

Money may be drawn from the bank by depositors under the following conditions: Sums under 200 marks may be drawn out at will by any depositor having that amount to his credit. For the withdrawal of sums from 200 to 1,000 marks a notice of four weeks must be given, and six months' notice is required when a depositor wishes to draw any sum from 1,000 marks to the full amount of his credit. In cases of especial urgency the directors may authorize departures to be made from this rule, and the policy of the bank in this respect is liberal and obliging. Interest ceases upon any sum so withdrawn or upon notice being given that it will be withdrawn at a specified date.

Neither the depositor's book nor his deposit can be sold, hypothecated, or transferred, except in case of death, when it descends naturally to his legal inheritor. When an account is closed by withdrawal of the entire deposit, the depositor's book is retained by the bank and canceled.

The Frankfort Savings-bank has enjoyed from the first a substantial and constantly augmented success. It began in 1823 with 294 depositors, the aggregate of whose deposits was 86,934 marks. In 1870 the depositors numbered 12,314, and the capital of the bank had risen to 7,743,882 marks. From that date its prosperity increased rapidly, and was still further augmented by the opening of the penny savings department, which took place in 1882, so that at the close of 1888 there were 56,697 depositors with an aggregate capital of 38,215,697 marks. The receipts for that year alone were 6,319,276 marks, and the disbursements on moneys withdrawn by depositors 5,151,602 marks.

2. THE WEEKLY SAVINGS INSTITUTION (ERSPARUNGS ANSTALT).

This, as already stated, is a special bureau or department of the savings-bank, the peculiar feature of which is that it collects, by means of special messengers who visit depositors at their homes, a specified weekly deposit, which is thereupon entered to their credit. Its object is to induce people of small but steady incomes to assume an obligation which obliges them to save and lay up regularly a small sum which they might otherwise spend needlessly or neglect to deposit by reason of the inconvenience of going to the bank during working hours. The following synopsis of its regulations will show the method by which this department is conducted:

A person desiring to become a depositor in the Ersparungs Anstalt makes personal application at the office, where he pays 1 mark as admission fee and receives a copy of the statutes and rules. One month thereafter the applicant is admitted to membership. He then states the amount which he wishes to deposit weekly. This may be 50 pfennigs, or 1, 2, 3, 4, 6, 8, 10, 15, or 20 marks, and the sum once stated and registered can be changed only at the beginning of a new year. A book of deposit, numbered and bearing the seal of the institution, is issued to the depositor when he first makes his weekly payment, with the date and amount of the same written therein. Thereafter the depositor's entire account is made up in his book only at the close of the year, or whenever he shall withdraw part of his deposit from the bank. Deposits are collected weekly from each depositor by the authorized collector, who gives receipts bearing the seal of the bank and book number of the depositor. Not more than fifty collections are made in a year, the last two weeks in December being omitted in the series. The collector calls for each weekly deposit but once; if it be not paid or the receipt therefor redeemed at the bank within eight days, the depositor is considered as having withdrawn, and the collector's visits to him are discontinued. Persons living at a distance from the institution may, if requested by the bank, authorize some person living near the bank to receive and pay their deposits to the collector. Mutual deposits can be made only by a man and his wife, in which case either one or the other can withdraw the entire sum which stands to their mutual credit.

Interest is paid on deposits at a rate fixed by the management. Since November, 1882, this rate of interest has been 3⅓ per cent. Any change in the rate of interest must be announced six months before taking effect. The weekly deposits paid in during a year begin bearing interest only on the 1st of January of the following year, and the yearly interest is carried at the close of the year to the credit of the depositor. In computing interest, disbursements to the depositor are only considered when they exceed in amount the sum of his non-interest bearing deposits made during the current year, and thereby reduce the amount of his interest-bearing capital deposited during a previous year. In case the deposit of a person who has ceased making weekly payments is not withdrawn within three years, interest thereon ceases. Any depositor can withdraw at will his entire deposit. After the death of a depositor further collections can not be made from his widow or heirs, and deposits can not be attached for private debts except upon the judgment of a court. Neither can the book of deposit be pawned or sold.

Payments are made to depositors as follows: 200 marks or less may be withdrawn without previous notice; from 200 to 500 marks, four weeks' notice must be given; from 500 to 1,000 marks, two months' notice; for any sum above that limit, six months' notice is required. The above rules apply when, after the death of a depositor, his lawful representative wishes to withdraw the deposit of the deceased. Final repayment is recorded in the deposit book of the retiring member, which is then filed in the bank and constitutes its voucher of final discharge.

An official statement, showing the condition of the bank and the account of each depositor, is published by the management at the close of each year. If any depositor believes his account to be therein misstated, he must apply within three months for a revision and correction of the same; otherwise the complaint will not be entertained.

In reply to the question whether this collection system had proved successful in Frankfort, the officers of the Ersparungs Anstalt reply that it has been reasonably so, but that it is complicated and difficult to supervise. The system is, in fact, better adapted to small cities and villages, where the number of depositors is limited, and where, mutual acquaintance being more general, depositors are more easily kept within the personal knowledge of the collectors. In a large city, where changes of residence and circumstances are frequent among the laboring classes, this becomes difficult. The record shows that on the last day of December, 1888, the Frankfort Ersparungs Anstalt had 10,948 depositors, of whom 1,272 had begun during that year. The total amount of their deposits, after deducting disbursements and repayments to retiring members, was 4,445,748 marks. The number of depositors increased about 3 per cent. and the amount of their capital about 8 per cent. per annum. The best that can be said of this department of the savings institution is that it induces people to save who have never saved any thing before, and probably would not without the spur of a weekly obligation, to which they become habituated and forget that it is a burden.

3. THE PENNY SAVINGS-BANK.

This, as already explained, is a separate department of the Sparkasse and was created in 1882. Its object is to reach the humblest class of working people, who have no time during working hours to go to a bank with their savings, and who, by reason of their scanty and often uncertain incomes, can not safely bind themselves to deposit a stated sum each week. For their benefit the following plan has been adopted, or rather adapted from the English system. The bank has appointed in different parts of the city forty agents, generally grocers, druggists, watch-makers, or other small shopkeepers whose places of business are kept open during the entire day and evening. To these agents are issued for sale quantities of adhesive stamps about the size and form of postage-stamps, each of which has a value of 10 pfennigs, or about 2½ cents. With these stamps are issued gratuitously a small numbered book, each containing fourteen leaves, one page of which is divided by printed lines into twenty squares of such size that one 10-penny stamp may be readily pasted within each square. When the squares on a page are thus filled, the sheet represents a value of 2 marks. Any person desiring to become a depositor in the Penny Savings-bank goes to the nearest agent, gives his name, address, and occupation, and receives one of these books, each leaf of which bears the same number as that on the cover. The would-be depositor then invests his spare pennies in savings stamps, which he pastes in the book until one or more pages are filled. When a page is thus filled, the depositor brings his book to the agent, who removes the leaf and sends it to the Penny Savings-bank, which enters upon its register the number, name, and address of the depositor, and issues in his name and number a deposit account-book, which is delivered through the agent to the depositor. The process is now complete and in working order. As fast as pennies are saved they are invested at the neighboring agent's shop in savings stamps, which are pasted in the pass-book. As these pages are filled they are detatched and sent to the bank, which keeps the account and at intervals writes it in the deposit book, which is sent in for that purpose. Interest is paid on deposits from the first of the succeeding month, and disbursements, etc., are made under the rules of the Sparkasse already described. The penny stamp savings system has been remarkably successful and popular in Frankfort. It is largely due to it that the whole number of depositors at the savings-bank has increased from 24,903 to 52,703 during the past eight years. It brings the savings-bank within reach of children, minors, and other persons of scanty means who would never face the teller of a bank with their pitiful little economies. They have no such timidity in buying blue savings stamps from the neighboring chemist or grocer, and the emulation of filling pages with these stamps teaches many a child the lesson of thrift and economy which may become invaluable in after life.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, January 25, 1890.

CAPERCAILZIE AND BLACK GAME.

REPORT BY MINISTER THOMAS, OF STOCKHOLM.

I have the honor to call your attention to the importance and practicability of introducing the capercailzie and black game of the Old World into the United States.

The capercailzie and black game are the two most important wild birds in Sweden and Norway, and make a valuable addition to the food of the Scandinavian people. These birds are excellent upon the table, their flesh resembling that of our prairie chickens.

Throughout the fall and most of the winter you may see the capercailzie and black game hanging up in large bunches or lying heaped up in great piles along the market-places of Stockholm; scattered about as profusely as wild ducks in the markets of Chicago or Minneapolis in the month of October.

THE CAPERCAILZIE.

The capercailzie is the largest and noblest of the grouse family—the family to which our pinnated grouse (prairie chicken) and ruffled grouse (partridge or pheasant) belong.

The full-grown male capercailzie weighs from 10 to 12 pounds, and some specimens considerably exceed this weight. These birds, in fact, approach very nearly the size of the wild turkey of America.

The home of the capercailzie extends over a wide range of latitude and temperature in two continents. From the wooded, mountainous regions of northern Spain and Greece, northward throughout Europe, this bird is found in most of the lofty forest districts suitable for his abode, and where he has not been exterminated by man. This grouse is abundant in the great pine and spruce forests of the Scandinavian peninsula, Finland, and Russia, and the vast forest stretches of northern Asia.

The capercailzie is an extremely hardy bird. In Sweden and Norway he is found in large numbers up to and beyond the arctic circle as far as the seventieth parallel of north latitude. He can endure the severest cold and deepest snows of the longest winters. He often avoids the bitterest cold by burrowing into the snow, thus obtaining warmth and shelter.

This bird subsists on the coarsest and commonest food. He feeds upon the buds and leaves of trees, the needles or leaves of the pine and spruce, young pine cones, clover and grass, berries of all sorts, seed and grain, and insects of every kind. In the depth of winter a capercailzie has been known to live for more than a week in the same pine-tree, subsisting entirely upon pine leaves and young pine cones.

The capercailzie is pre-eminently a bird of the pine woods, or pine mixed with birch, spruce, maple, and other growths. He loves wooded hill-sides better than wooded plains, and he must have fresh water near by—either a brook or pond or a piece of swampy ground.

He is a local, not a migratory bird, though sometimes lack of food or other causes may drive him to extensive wanderings. In his habits he much resembles our American ruffled grouse—though in size he is nearly ten times as large—and, I believe, will thrive anywhere in the United States where our ruffled grouse (called partridge in New England and pheasant in the Middle States) is found.

BLACK GAME.

The black game inhabits nearly the same regions as the capercailzie. He is equally hardy, and can withstand the cold and snows of the most rigorous northern winters. His weight is about 3 pounds—about the same as our prairie chicken. The male bird is a lustrous, metallic black in color; hence the name. He has, however, a white stripe in his wings, and his jet-black, outward-curving tail feathers are much prized as a hat ornament in the Tyrol.

The black game is also a grouse, and he is often found in company with the capercailzie, or at least in close proximity. The black game is also a bird of the woods, but the birch is pre-eminently his tree, though he is met with in mixed growths of almost every variety. He does not frequent the deep woods so much as the capercailzie; he loves better the borders of the forest and woods and groves with frequent openings. He is also fond of cranberry swamps, and in swampy lands is often found miles away from any forest.

His food is much the same as the capercailzie, though not quite so coarse. It consists chiefly of the buds and leaves of trees, berries, and insects. In summer the black game is very fond of blueberries, raspberries, and cranberries; in winter he feeds principally upon the buds of the birch, hazel, alder, willow, and beech, and when pressed for food will eat the young green cones of the pine. This bird seems to be equally fond of animal food, and readily eats snails, worms, the larvæ of ants, flies, beetles, etc.

He is a more social bird than the capercailzie, and comes out more into the fields and clearings and nearer the abodes of man.

WILL THEY THRIVE IN THE UNITED STATES?

Hundreds of times when traveling through the forests of Scandinavia I could scarcely resist the conviction that I must be back again in the woods of New England. Here in Sweden are the same hill-sides and mountains, the same swift, clear brooks foaming in their rocky beds, and the same forest trees — the pine and spruce, the birch, maple, and beech, the oak and ash. Here are the same wild berries, too; and in Sweden you may pick wild strawberries, raspberries, blueberries, and blackberries, just as with us in America.

Then take the two grandest and most useful of the wild animals of Scandinavia. The reindeer of the fjelds is almost identical with our own caribou, and the most expert naturalists have been unable to distinguish any substantial difference between the Swedish elk and the moose of America. The fact is that a great portion of the United States — at least one-third, perhaps one-half — is fitted to be the home of the capercailzie and the black game, for there is a suitable climate, a suitable broken country of hill and dale, well watered and covered with a suitable forest growth; and this forest growth, together with its underbrush and bushes, will not only provide shelter for these birds, but will furnish them with all the food they require until they become as plenty as European sparrows now are in our streets and public parks. It is my firm conviction that these valuable birds will thrive throughout all the wooded districts of New England, New York, and Pennsylvania, and westward through the greater portion of the States of Michigan, Wisconsin, and Minnesota. They will also find a congenial home along the wooded slopes of the Rocky Mountains for their entire length, as well as in all the wooded ravines and declivities of the mountain ranges of California, Oregon, and Washington. And not only here. The fact that these birds are found among the hills and mountains of Europe as far south as Greece, Italy, and Spain renders it almost certain that they will find a congenial climate and nature throughout the entire ranges of the Alleghenies, the Blue Ridge, and the Cumberland Mountains, together with their spurs, side-hills, and outlying forest districts, and may thus easily be acclimated over large sections of the States of Virginia, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, and Alabama. And, besides the districts above enumerated, there are doubtless many other portions of the United States well fitted to be the home of these magnificent game birds.

THEIR INTRODUCTION INTO THE UNITED STATES.

The easiest and cheapest way would be by obtaining their eggs, sending them to America, and having them hatched out there. I am sorry that I can not recommend this course. Eggs have repeatedly been sent to Germany and Great Britain, but every such attempt has turned out a complete failure. The only other method is to procure and ship adult birds. This method has also been tried, and the results are such as to give us great encouragement.

The capercailzie was originally found in Scotland. His great size and fine flesh caused him to be keenly hunted, and some generations ago he was utterly exterminated.

About fifty years since some hundred and fifty capercailzie adult birds were shipped from Sweden across the North Sea to Scotland. They arrived safely, were liberated in a suitable locality, and lived and increased. Their descendants are living and increasing to this day, and the capercailzie is again added to the food birds of Scotland.

I find there have been several shipments of both capercailzie and black game of late years from Sweden to various parts of Germany, Austria, and Hungary to localities where these birds had been shot out or where they had never existed. In all the instances where proper care has been exercised most of the birds have arrived in good condition, have taken kindly to their new homes, and are breeding well there.

Within four years a considerable shipment of black game was made from Sweden to southern Austria, near the Italian boundary, and, notwithstanding the birds were ten days upon the road, and that there were many changes of trains, they all arrived sound and well, not a bird dying on the passage. There are now direct steamers from Gothenburg, Sweden, also from Copenhagen, just across the sound, in Denmark, to New York and Boston. The passage, in the summer-time, occupies some twelve or thirteen days. Surely the fatigue and hardship of this passage would be less than ten days in freight-cars. Neither will the salt air have any bad effect upon the birds. Both species love to inhabit the wooded islands along the coast, and fly readily from one to the other across great reaches of water. I think the best time for transportation would be late in August or early in September.

THE COST.

I find the birds recently shipped to Germany have cost $12 each for capercailzie and $7 for black game. These prices seem to me high. I found, however, that many of the birds are injured in snaring, and many more die after a few days' confinement. Birds suitable for export, and for which the above prices are asked, are all strong, full-grown birds, without injury or blemish. They are kept for a considerable time in captivity, and are, in fact, nearly half domesticated before they are considered suitable to ship on a long voyage, so that the prices may, perhaps, be only a fair compensation for labor and time and the inevitable large mortality among the birds during the earlier part of their captivity. I believe that at least one hundred birds of each species should be shipped to give the experiment a fair trial. In case we can obtain no reduction in the price this will make—

One hundred capercailzie, at $12	$1,200
One hundred black game, at $7	700
Total	1,900

The birds must be placed in roomy coops of the best construction, and not crowded. They must have a light and airy position on shipboard, and some one should be sent to take charge of them, or some sailor or steward on board must be specially instructed, so as to properly feed and care for them. The expense of building the coops, of freight, and care-taking will be considerable, to which must be added freight and expenses from the American port of landing to the destination; so that, allowing for all contingencies, a sum of $3,000 will be required for the undertaking.

WHERE SHALL THE EXPERIMENT BE TRIED?

It seems to me the National Yellowstone Park is the proper place to first liberate these birds, and to make the first attempt to acclimatize them on American soil. I have never had the pleasure of visiting this grand park, but, if the accounts I have read are correct, there are to be found within its borders hill-side forests, well watered, which will furnish these birds with all needed shelter and food. In the National Park, also, the birds can be protected by the Government against poachers. The only objection to the park is the long journey by land necessary to reach it; and this, added to the long sea voyage, might be more than the birds could endure. However, upon the arrival of the birds in New York, a proper person could decide whether they were in a fit condition to stand the western trip. If they were not, there are hundreds of places within twenty-four hours of the Atlantic where the birds could be liberated with advantage.

Should our Government be willing to try this experiment with a liberal hand, other shipments could be made, and separate flocks of capercailzie and black game be set free in different sections of the Union. The great forests of northern Maine, the Adirondack region in New York, the Allegheny Mountains, and the woods of eastern Minnesota would be especially adapted for this purpose.

I have made the matter of the introduction of the capercailzie and black game into my native land the study of leisure hours for many years, and have sought information which would throw light upon the undertaking from every available source. And it is only now, when I am convinced that success is reasonably certain, that I venture to recommend the experiment.

It appears to me that if we take into consideration the value of these birds as articles of food, the great size of one of them, the hardy qualities of both species, their power to withstand cold and snow and the utmost rigors of our climate, and their ability to live and thrive upon the coarsest products of our forests, which products now largely go to waste—it appears to me, I say, that all these considerations together are amply sufficient to warrant our giving the acclimatization of the capercailzie and black game in America a fair and thorough trial.

For my own part, it will be a labor of love to assist, in every way in my power, any effort to add these noble birds to the fauna of America.

W. W. THOMAS, Jr.,
Minister.

United States Legation,
Stockholm, February 12, 1890.

EMIGRATION FROM BOHEMIA.

*REPORT BY CONSUL JONAS, OF PRAGUE.**

In response to instructions, I have the honor to transmit the following brief report on emigration from Bohemia to the United States.

The official figures of emigration to America since 1884, when the last consular report was made, are as follows:

	Persons.
1885	5,571
1886	4,413
1887 (first six months)	2,530

From Bremen I have received the following statement, purporting to give the total figures of Bohemian emigration to America through that port:

	Persons.
1885	4,352
1886	3,964
1887	6,809

From Hamburg the subjoined accurate statement of emigration from Bohemia, Hungary, and the rest of the Austrian Empire to the United States through that German port has been furnished to me:

Year.	Male.	Female.	Total.
From Bohemia:			
1885	1,995	1,781	3,776
1886	1,986	1,565	3,533
1887	1,559	1,291	2,850
From Hungary:			
1885	2,625	1,554	4,179
1886	8,773	3,403	12,176
1887	7,331	2,267	9,598
Remainder of Austria:			
1885	3,255	1,806	5,061
1886	5,648	3,090	8,738
1887	3,980	1,850	5,835

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* Through some oversight this and the following valuable report were filed away on their receipt at the Department, instead of being sent to the bureau having charge of consular reports; hence their publication at this late date.

There is evidently a great discrepancy between the total figures given by the Bohemian officials and the totals from the reports of the Bremen and Hamburg port officers; but, taking these to be near the truth, and considering that a certain number of emigrants from Bohemia pass through the port of Antwerp, we can not place the average figure of Bohemian emigrants in the last three years at more than 10,000, which is a very moderate number from a country containing nearly 6,000,000 people, with a yearly natural increase of 50,000.

CHARACTER OF EMIGRATION.

The emigration through the port of Hamburg, as given in the foregoing tables, shows the following average percentage in regard to sex:

Country.	Male.	Female.
	Per cent.	*Per cent.*
Bohemia	54	46
Hungary	70	30
Austria	65	35

From this exhibit it appears that the Bohemian emigration consists mostly of families going to America with the bona fide intention of settling there permanently and becoming American citizens; whereas the emigration from the rest of Austria and Hungary consists, to a far greater extent, of persons going to America without any fixed intention, or simply for the purpose of accumulating property and returning to their former homes. The Bohemian emigrants, as a rule, are able-bodied, intelligent persons, earnest in their desire to become citizens of the great American Union, to enjoy the benefits of its free institutions, and to contribute to its well-being and prosperity. Of course, there are exceptions to this rule, and in numerous instances persons emigrate to the United States who have been nuisances in their native land, and who prove to be most unwholesome acquisitions to the United States. Such unworthy persons should, in the public interest of the American nation, be excluded from our shores, if it can be done by some just and proper legislative enactment.

OCCUPATIONS.

With regard to occupations, the Bohemian emigrants to America are approximatively classified as follows:

	Per cent.
Farmers	40
Mechanics	35
Common laborers	25

Emigration from Bohemia, as far as I can ascertain, is at present entirely free and voluntary; only in some sporadic cases attempts have been made to stimulate it by distributing circulars issued by railroad companies owning lands, or real estate agents. I am not aware of any cases of assisted emigration beyond those where persons already in America aid their own families, relations, or friends to come after them, prepaying their passage; and such cases are quite numerous. Neither have I any reason to believe that there has been any attempt made in Bohemia to evade our law prohibiting the importation of laborers under contract.

CHARLES JONAS,
Consul.

UNITED STATES CONSULATE,
Prague, October 5, 1888.

BOHEMIAN AND HUNGARIAN EMIGRATION TO THE UNITED STATES.

SUPPLEMENTARY REPORT BY CONSUL JONAS, OF PRAGUE.

I beg leave to submit the following supplemental report on emigration to the United States, based upon some additional information, gathered from the best sources.

There are cases in which people, having emigrated from Bohemia and lived in the United States for a number of years, return to the country of their birth with such savings as they had been able to make, intending to spend the rest of their lives in the "old country." But such cases are not very numerous; and, as a rule, after staying here for a certain period, such people change their minds and return to the United States, satisfied that the ways of their native land do not agree with them any longer, and that the United States has become their only home.

But in some instances people, having become naturalized in the United States, do return to Bohemia to live here, engaging in business and raising families, with no intention of going back to the United States. Holding fast to their acquired American citizenship, they claim the protection of the United States Government, shirking and avoiding the duties and responsibilities of citizenship here, as well as in the United States. Evidently such persons never intended to make the United States their and their children's home, and they are simply abusing the acquired right of American citizenship.

In regard to emigration from Hungary to the United States, which, being of recent origin, has within the last few years assumed large proportions, the case is different. There is a constant stream of Hungarian emigrants going to the United States, and a constant stream is returning to Hungary. I have it on the authority of emigration agents and officers at the leading German ports that in some seasons the number of Hungarians returning from the United States has nearly equaled the number of Hungarian emigrants going thither. They try to earn and save some money in the United States, and then to bring it back to buy property or to place it at interest. And very often, having invested their American savings here, they return again to the United States in search of employment, to effect new savings to be again carried off or sent to their native land.

It does not require any argument to demonstrate that such immigration is no gain, but a positive loss, to the United States. It has a tendency to glut the American labor market; it creates an unfair competition for the American working-man; in short, it is, in its general effect, tantamount to the importation of cheap foreign labor under contract.

The Hungarians going to the United States in search of work are mostly of a class whose habits of life are very low, and during their temporary stay in the United States they not only stick to their low habits, but actually try to live, in most cases, perhaps, on a scale even more degraded than at home, in order to increase their savings, which they intend to carry out of the country.

CHARLES JONAS,
Consul.

UNITED STATES CONSULATE,
Prague, October 12, 1888.

NEWCASTLE-ON-TYNE CATTLE MARKET.

REPORT BY CONSUL PUGH.

Newcastle is one of the leading cattle markets of the United Kingdom, supplying beef cattle to a territory embracing more than a million people, and upon inquiry it is learned that, while there is a large importation of cattle to this market, there is not a single American beef offered; and, so far as I have been able to discover, there has been no effort made to open this market to cattle from the United States.

An investigation as to prices obtained, quality of stock offered, places where grown, and all the facts connected with Newcastle as a cattle market has induced me to believe that American cattle would find here a ready sale and be a successful competitor to those now offered.

I find that more than 33 per cent. of the cattle sold in this market are imported from the Scandinavian countries, principally Denmark and Sweden, although there are importations from elsewhere; and upon examination of the quality, they are found to be vastly inferior to those offered in any American market. It would, perhaps, be a fair estimate to say that one-half of the Scandinavian cattle are landed here extremely thin in flesh, taken by local farmers into the country, fattened, and returned to market. By this means they lose their identity and are classed as home grown, so that it is impossible to arrive at the true percentage of imported cattle. Enough, however, may be learned to disclose the enormous numbers imported into this market every year and the importance of the place to cattle growers and shippers generally, as well as to justify an effort on behalf of Amercan cattle men of dividing honors with those already established in this market.

During the last quarter of 1889 the cattle sales in this market show importations from Denmark and Sweden alone, as follows:

Month.	Denmark and Sweden.	All sources.
	Number.	*Number.*
October	4,664	12,540
November	3,782	9,984
December	3,543	9,897
Total	11,989	32,421

This total from all sources of 32,421 includes a large number originally from Denmark and Sweden resold on the market as above stated, and the prices at which these cattle were actually sold during these three months were, reduced to American weights and money: Heifers, $13\frac{6}{7}$ to $14\frac{1}{7}$ cents per pound; steers, $12\frac{3}{7}$ to $13\frac{5}{7}$ cents per pound; average beeves of 1,200 pounds being preferred.

It occurs to me that there is ample margin to admit of profitable importation of cattle from the United States; that the superior quality would insure successful competition with the Scandinavian; and that they would find a ready sale, even at a higher price in the event of a reduction in prices of those from Denmark and Sweden.

There exists a quarantine regulation against cattle from the United States, but happily the station, or yards, are within the business portion of the city, at the quay-side, so that the operation of the privy council's regulation would be merely nominal.

With a view to a thorough investigation of this subject, I invited to the consulate local dealers and commission men who are at the head of the importation and trade, as well as the owners of a line of steam-ships plying between this place and ports of the United States; and, as a result of the conference, both the cattle men and ship-owners are deeply interested in the opening of this trade and the introduction of American cattle, the latter to the extent of submitting to the city corporation a proposition to put the yards into such condition as the privy council may direct for the reception of American cattle at their own expense. This is to prevent the city corporation from interfering with the present station, and possibly erecting one at a less convenient place. The ship-owners also agree that cattle shall be landed at this place, direct from ports of the United States, at a rate not exceeding that to Liverpool.

Dealers here desire to be placed in communication with persons in the United States who may be relied upon in giving them satisfactory information upon all matters pertaining to the importation of American cattle to this market, also such as could be depended upon in consigning the quality required in the event of the opening of this trade, or even experimenting on a few cargo lots in order to test the market.

It is therefore suggested that such persons be invited to communicate with me, and I shall place their letters in the hands of responsible persons to be answered, and thus open a direct correspondence between buyer and seller, that they may arrive at mutual understandings and possibly mutual agreements.

HORACE C. PUGH,
Consul.

UNITED STATES CONSULATE,
Newcastle-on-Tyne, February 6, 1890.

RUSSIAN MEAT IN ENGLAND AND GERMANY.

REPORT BY CONSUL FAY, OF STETTIN.

The Russian domain has a yearly surplus of cattle worth about 7,000,000 rubles (1 ruble=54.4 cents), for which a market must be found, and the prospects are the efforts will be successful.

Large quantities were formerly exported to western Europe, but the sales thereat have diminished, caused by the neighboring countries prohibiting the importation thereof, and lately by competition of America and Australia; although these latter parts of the world, so far away, are not so favorably situated to cover the meat deficit in northern, western, and southern Europe as is Russia.

Some ten years ago a company was organized and established in Libau, a Russian port on the East Sea, for the purpose of exporting meats to London.

The trial shipments were so satisfactory, and the trade gradually increased to such an extent, that in the year 1883 large slaughtering establishments were constructed whereby 1,000 cattle and 3,000 sheep were slaughtered and sent to England during that year with satisfactory results.

The prospects are now so favorable that the Russian authorities have decided to protect and assist this trade. Arrangements have already been perfected whereby 25,000 cattle, 110,000 sheep, and a very large number of hogs can be slaughtered, prepared, and exported during this year. It is also contemplated to build a monster factory for the purpose of conserving meats.

German papers say Russia has cause to be hopeful, more particularly in England, to be able to stay the competition of the United States and Australia. Whilst American meats have a distance of 3,300 miles to cover—which consumes about fourteen days' time—in order to reach the English markets, Russian meats can be brought to London from Libau in five days, and from Riga in seven days' time.

Hamburg butchers, in order to cover the demands of that market, have gone to Russia this winter with the necessary help and capital to slaughter and buy hogs in large numbers. The meat is salted and packed in barrels and shipped by rail to Hamburg. During the week ended February 10 200,000 pounds of this pork arrived in Hamburg, and was sold within a few days. The meat is said to be excellent in quality.

A permanent market has been established in Hamburg for the sale of Russian pork only, which has lowered the price of meats in that city notwithstanding the duty of 10 pfennigs (2½ cents) per pound.

Russia is giving all possible aid to this trade, which promises to become important for the stock producers of that country.

ANDREW F. FAY,
Consul.

UNITED STATES CONSULATE,
Stettin, February 20, 1890.

BRITISH CEREAL CROPS FOR 1889.

REPORT BY CONSUL WIGFALL, OF LEEDS.

In the issue of December 21, 1889, of the Economist a summary view is given of the cereal outturn for the year then closing, as follows:

> In our issue of August 3, when harvest had just begun, we ventured to estimate the wheat crop at about 30 bushels an acre; and when Sir John Lawes, basing his estimate upon the produce of his experimental plots, gave 27½ bushels as the probable yield, we were not able to accept so low a reckoning. The preliminary summary of the agricultural produce statistics, just issued by the board of agriculture, puts the yield for Great Britain at 29.91 bushels an acre, which is close enough to 30 bushels. It is true that we do not yet know what the yield is in Ireland and the small islands, but, as the area of the wheat crop in those portions of the Kingdom amounts to only 95,195 acres, the produce will not materially affect the general average, and there is every reason to believe, moreover, that it is but little, if at all, less per acre than the yield in Great Britain. In the following table we show the acreage and estimated gross produce of the cereal crops in Great Britain, as compared with last year's quantities, and the yield per acre as compared with the yield of 1888 and with the ordinary average:

WHEAT.

Country.	Area.		Total produce.		Yield per acre.		
	1889.	1888.	1889.	1888.	1889.	1888.	Ordinary average.
	Acres.	*Acres.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
England	2,321,504	2,418,674	69,400,608	68,159,216	29.89	28.18	28.94
Wales	68,464	76,828	1,672,557	1,641,149	24.43	21.36	21.53
Scotland	59,386	68,735	2,193,842	2,139,282	36.94	31.12	32.85
Total	2,449,354	2,564,237	73,267,007	71,939,647	29.91	28.05	28.80

BARLEY.

England	1,776,011	1,742,338	56,088,627	57,740,453	31.58	33.14	34.35
Wales	122,051	117,866	3,548,138	3,110,975	29.07	26.39	27.78
Scotland	223,468	225,357	7,842,034	7,630,661	35.09	33.86	34.77
Total	2,121,530	2,085,561	67,478,799	68,482,089	31.81	32.84	34.02

OATS.

Country.	Area.		Total produce.		Yield per acre.		
	1889.	1888.	1889.	1888.	1889.	1888.	Ordinary average.
	Acres.	*Acres.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
England	1,623,967	1,616,344	68,216,705	64,836,319	42.01	40.11	42.10
Wales	249,022	250,513	8,150,208	7,521,038	32.73	30.02	32.48
Scotland	1,015,715	1,015,395	37,182,054	34,986,742	36.61	34.46	35.75
Total	2,888,704	2,882,252	113,548,967	107,344,099	39.31	37.24	39.04

Increase or decrease in 1889.

Crops.	Area compared with 1888.	Total produce compared with 1888.	Yield per acre.	
			Compared with 1888.	Compared with ordinary average.
	Acres.	*Bushels.*	*Bushels.*	*Bushels.*
Wheat	—114,883	+1,327,360	+1.86	+1.11
Barley	+ 35,969	—1,003,290	—1.03	—2.21
Oats	+ 6,452	+6,204,868	+2.07	+0.28

Here it will be seen that, in spite of a decrease of area, the wheat crop of the present season is considerably larger than that of last year, the yield being over 1¾ bushels per acre more, and over a bushel in excess of the ordinary average. A glance at the previous table will show, moreover, that the yield was greater than that of 1888 or the ordinary average in each division of Great Britain. In the case of barley there is a small increase in area, with a considerable falling off in produce, the yield per acre being about a bushel less than that of last year, and nearly 1¼ bushels less than the ordinary average. The decline in yield is entirely due to England, Wales and Scotland having reaped extra good crops. Turning to the figures for oats, we find a very small increase in area, which is not surprising, as last year's crop was planted on an extra large breadth of land; and the produce is greatly in excess of last year's total, while the yield per acre is over 2 bushels greater than that of last year, and more than a quarter of a bushel over the ordinary average. Here, again, England shows up relatively less favorably than either Wales or Scotland, with a yield better than that of 1888, indeed, but a small fraction below the ordinary average; whereas the figures for Wales and Scotland show a surplus yield in respect of each comparison.

With reference to other crops the article continues:

For the statistics relating to other farm crops we shall have to wait until February, but there is no doubt that they will be generally favorable, the hay crop being probably the greatest ever produced, while roots and potatoes were more than usually flourishing crops. Even if beans and peas are under the mark, which there is no reason to suppose if harvest reports are to be relied on, the area under these crops is now so small that they count for comparatively little in the general farm balance-sheet.

As regards the net result to the farmer, a favorable opinion is deduced:

In spite of all the grumbling which has been heard lately from leading representatives of the agricultural interest, then, we must still reckon the past harvest as a bountiful one. It is true that the prices of wheat, oats, and grinding barley are very low. The average for wheat last week was only 30*s.* 2*d.* per quarter, which is even lower than it has been for the corresponding week of any of the four preceding years. Inferior barley keeps the average down, that of last week having been 29*s.* 10*d.*; but many farmers have been quietly making 40*s.* to 50*s.* of their malting barleys; and oats, with an average of 17*s.* 1*d.* per quarter, sell better than they have done in three previous years. Hay, on account of its great abundance, is very cheap, so that those who sell it get no greater return than they often obtain for half the quantity they have to dispose of this year. A comparatively small proportion of the hay crop, however, is sold, and the proportion which is used for live stock, good in quality as most of it is, should yield a fair profit, as all kinds of lean and fat stock sell well, and dairy products also. On the whole, we can not help thinking that the year shortly about to close has been a more prosperous one for farmers than any which they have passed through for some time.

Adverting to the course of prices, and the influence thereon of probable supply and demand, the editor goes on:

With respect to the price of wheat, the prospect of any substantial advance seems somewhat less hopeful than it was supposed to be a month or two back. The produce of Great Britain, according to the official figures, is 9,158,376 quarters, and, if we allow 29 bushels an acre for the 95,195 acres in Ireland and the small islands, the total for the United Kingdom will be 9,503,458 quarters. Allowing 1,000,000 quarters off for seed and stock feeding, we have 8,503,458 quarters left for human food. The population, in the middle of the current cereal year, is estimated at 38,140,830, and, at 5½ bushels a head, the quantity required for twelve months' consumption will be 26,221,820 quarters. The balance to be supplied from foreign sources—stocks in this country at the beginning of the harvest year having been low—is 17,118,362 quarters, or, if we allow for a little extra use of damaged wheat for live stock, 18,000,000 quarters. The American surplus for Europe—most of which will come to us—is now reckoned at about 14,000,000 quarters for the whole cereal year, the official estimate of the entire crop of the United States having been lately brought down to about 470,000,000 bushels of 60 pounds. It is impossible to say what Russia will send us, as it is not known how far her heavy stocks of old wheat will go towards balancing the great deficiency in her new crop, officially estimated at over 11,000,000 quarters less than that of 1888; and Indian supplies in the latter part of the cereal year will depend in great measure upon the character of the coming harvest. Canada has a bad crop, recent returns from Ontario and Manitoba alike having made known a very poor yield; and the surplus from the new crop in South America is not likely to be large after exhausted stocks (importation having been necessary during the present year) have been replenished. But we are now assured that Australia will be able to spare from 1,000,000 to 1,250,000 quarters for Europe, and prospects in New Zealand are good.

During the first quarter of the cereal year we imported wheat and flour equal to about 5,000,000 quarters of wheat, though the board of trade, by putting the wheat equivalent of flour too low, makes the quantity a little less. It seems certain, then, that the remaining 13,000,000 quarters will be easily obtained, although any such complications as bad crops in India or very poor prospects in Europe might send prices up to a moderate extent.

The present prospect of the coming wheat crop here and in India is briefly referred to, accompanied by some words of general advice to British farmers, which, while by no means sanguine in their tone, still take a hopeful view:

The young wheats in this country are somewhat commonly said to be gappy in plant, and the few reports received from India are unfavorable. Thus there is a chance of better prices in the spring, though a poorer chance than there seemed to be before the Australian harvest began. Apparently our farmers will have to "make their book" for growing wheat at about 30 shillings a quarter for some years to come, except in the event of a quite unusually exten sive failure of crops, which it is not safe to count on now that we draw our supplies from so many parts of the world, in which harvest is going on nearly all the year round. It was recently shown in these columns that some farmers in this country can grow wheat profitably at the price named, and the best hope of tiring out competition in foreign countries is to produce as cheaply as possible. Manufacturers do not meet foreign competition by publicly throwing up the sponge and declaring that they can not fight their rivals. They strive to reduce the cost of production, and to drive competing manufactures out of their markets by underselling the producers. Our farmers have injured themselves by telling their foreign rivals that they can not grow wheat at current prices, thus leading the latter to keep on growing the crop extensively in expectation of having British markets pretty well to themselves. There is abundance of evidence to show that wheat growers in the United States, Canada, and South America have felt the strain of low prices as severely as British growers, and in the course of a few years it is probable that the production of wheat, relatively to population, will be less than it is now. Already it is so in the United States and Canada, and it has been so in Australasia, though prices in that part of the world, raised by poor harvests, have lately caused a reaction. Our farmers, then, should take courage, making up their minds to adopt the cheapest methods of production until the severity of the contest they are now waging abates to some extent, and then to reap the reward which will fall to those who have proved themselves the fittest in the struggle for existence.

F. H. WIGFALL,
Consul.

UNITED STATES CONSULATE,
Leeds, January 6, 1890.

SUEZ CANAL TRAFFIC.

REPORT BY ACTING CONSULAR AGENT BROADBENT, OF PORT SAID.

Statement showing the number and tonnage of vessels passing through the canal during the fourth quarter of the year 1889.

Nationality.	October.		November.		December.	
	No.	Tons, net.	No.	Tons, net.	No.	Tons, net.
Austrian	4	8,855	3	6,802	4	8,735
British	195	362,345	180	347,687	206	382,211
Chinese	1	875	....	....	....	....
Dutch	12	20,206	13	23,480	10	16,717
Egyptian	2	1,004	1	279	....	....
French	14	27,265	16	35,643	12	27,121
German	21	35,482	13	24,584	16	26,095
Italian	11	19,933	6	14,085	8	11,734
Japanese	1	1,035	....	....	....	....
Norwegian	5	7,111	5	6,018	2	3,004
Ottoman	1	1,186	2	2,510	....	....
Portuguese	1	154	....	....	....	....
Russian	....	....	....	....	3	867
Spanish	3	6,944	3	6,020	2	4,228
Total	271	492,395	242	467,108	263	487,711

S. G. BROADBENT,
Acting Consular Agent.

UNITED STATES CONSULAR AGENCY,
Port Said, February 8, 1890.

RUSSIAN CEREAL TRADE.

REPORT BY CONSUL-GENERAL CRAWFORD, OF ST. PETERSBURG.

I have deduced and inclose herewith a summary of an exhaustive report, recently published by the Russian ministry of agriculture, on the sale of cereals, hoping it may be of interest to the Department.

During the last three years the exports of Russian cereals have been very considerable, and this fact has occasioned wide-spread interest in economic circles. This success, in some quarters, has been attributed naturally to the abundant crops of 1887 and 1888; in others, to the depreciation of the paper ruble. It appears, however, that the abundant exports of cereals for the last few years are not wholly due to either of these accidental causes, as there has been a gradual increase in this regard, as shown by the official records, for the past twenty-five years, irrespective of vacillations in the crops and in the value of the ruble.

The following table will show the averages of transports in five-year periods, beginning with 1867 and ending with July 1, 1889:

Year.	Tons.	Per cent.
1867-'71	2,402,678	100
1872-'76	3,207,857	134
1877-'81	4,541,785	189
1882-'86	5,019,107	209
1887-'89 (to July 1)	7,182,678	299

The progression is, as seen, constant and somewhat regular; the increase has continued, notwithstanding the fact that serious obstacles have stood in the way, namely, the sharp competition met with in the American markets and the imposition of customs on cereals in the greater number of European countries.

This gradual increase in the amount of Russian exports of cereals seems to prove that the requirements of countries where industry dominates and where local agriculture does not suffice for the wants of the population increases permanently, thus opening a vast field of activity, gradually enhancing the interests of the cereal-producing countries. This steady increase in the commerce of Russia seems to prove, furthermore—and this point is worthy of emphasis—that the charges made that Russia is deteriorating in her agricultural interests have no foundation. Such criticisms are manifestly unjust, otherwise it would be impossible for Russia to export annually three times as much cereals as she exported twenty years ago. It is shown in the report above mentioned that the cultivation of cereals is ever on the increase in the steppes, and especially in the southeast. Here, as well as in other districts, the progress of cultivation is conspicuous upon the results of agriculture. Improved farming implements may be seen to be widely employed in agricultural pursuits. Notwithstanding the incomplete statistics of agricultur obtained in Russia, it is impossible to contest their relative value, inasmuc as the results indicated are corroborated by the export lists, which are absolutely authentic.

Thus the average of the net produce of Russia in Europe, not comprisin the Polish provinces, has been estimated for the period of 1870–'79 a 25,939,285 tons of cereals of all kinds, whereas the average for the perio 1883–'89 amounted to 28,478,571 tons, thus showing an increase of about per cent. The average exports for the period 1870–'79 amounted to abou 15 per cent. of the net product, and for the period 1883–'89 it amounted t more than 20 per cent. of the entire product. This increase, however, supplied by Russia to the foreign markets, has not been effected—so far as it relates to the food of man—to the detriment of the country, inasmuch a during the years mentioned the average amount of cereals remaining for th consumption of Russia has been estimated at 480 pounds per head.

In recording these satisfactory results I beg to call attention to the stat ments made in my former report, extracted from that of the ministry finance, which shows the unfavorable side of the Russian export commer as compared with that of her principal competitor, namely, the Unit States, in the universal market.

In order better to show the difference between the two countries, I w put in parallel columns the amounts of the various cereals which are pr duced in Russia and in the United States:

Cereals.	United States.	Russia
	Bushels.	*Bushels*
Wheat	458,200,000	214,600,
Rye	2,494,000	649,600,
Oats	649,600,000	526,[illegible]
Barley	6,032,000	130,[illegible]
Maize	1,711,000,000	[illegible],400,

Herewith follow the average exports of the two countries during period 1883–'87, for comparison:

Cereals.	United States.	Russia
	Tons.	[illegible]
Wheat	3,437,679	[illegible]
Rye	57,857	[illegible]
Oats	43,393	[illegible]
Barley	14,464	[illegible]
Maize	1,350,000	[illegible]

It may be remarked also that only about 3 per cent. of the wheat ported from Russia is in the form of flour, whereas about 36 per cent. of wheat exported from the United States is ground.

The preceding figures show that in Russia the production of rye is nearly s great as that of wheat, whereas in the United States the production of ye is comparatively insignificant. This difference is due principally to eographical conditions—all the north of Russia and a large portion of the entral zone are unsuited to the cultivation of wheat. It is also due to he triennial rotation of crops, which is maintained as the basis of the Rusian agricultural system, and to the absence of fertilizers, owing to the fact hat cattle breeding is not a prominent industry. The subsequent progress f agricultural industries will probably, however, manifest itself with the exension of wheat growing in Russia.

The above tables show, furthermore, that the great predominance of naize culture in the United States over that of Russia is due to the great attle-raising industry in the latter country.

Two-thirds of the small quantity of maize produced in Russia are exported, hereas in the United States, of a maize crop three hundred times as large that of Russia, only 4 per cent. is exported. The proportion is about ne same for oats and barley.

The exports of the United States, relative to the net crops, are shown to e as follows: For oats, 4 per cent.; for barley, 1.4 per cent.; whereas Rusan exports are—oats, 17.4 per cent.; barley, 37 per cent.

The agricultural inequality of Russia consists, firstly, in that wheat, that to say, the most precious product, holds an inferior place in the export list; econdly, Russia gives too much attention to the export of cereals in general hich it would be more profitable to retain in the country for the developnent of the cattle-breeding industry to hope to keep pace with such a ountry as the United States.

It is therefore interesting to study the following statistics, indicating the radual progress of the exports of the different cereals for the last twenty ears:

Cereals.	1867-'71.	1872-'76.	1877-'81.	1882-'86.	1887-'88.*	Increase.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Per cent.*
heat	1,378,928	1,404,647	1,608,214	2,021,964	2,762,678	200
ye	385,714	972,321	1,221,419	1,057,500	1,371,250	367
ats	284,464	392,143	708,750	806,785	1,179,643	414
arley	167,143	236,250	446,785	662,143	1,020,535	611
aize	67,500	54,643	188,035	234,643	421,071	619

* To July 1.

This table shows that the larger portion of Russian exports consists of ach cereals as are required for feeding live stock, and that the export wheat, although three times as great as in 1866, is still relatively very nall.

This disproportion between the export and the interior consumption is particularly seen in the case of oats, as shown by the following table:

Years.	Net crop.	Exports.	Ratio of exports.	Interior consumption.	
				Total.	Per inhabitant.
	Tons.	*Tons.*	*Per cent.*	*Tons.*	*Pounds.*
1870–'74	5,416,071	368,035	7.3	5,048,036	162
1875–'79	5,460,687	639,647	11.4	4,821,340	144
1883–'88 (to July 1)	5,266,607	925,714	17.4	4,340,893	127

It has been suggested that there must be some mistake in the figures given above, as it is difficult to believe that the average consumption of oats can have decreased by 25 per cent. While it is admitted that this cereal in Russia does not hold a rank in any way equal to its possibilities, especially in view of the favorable progress of horse breeding (mostly beasts of labor), it seems possible that there may be some errors in the statistics of the agricultural returns—an easy possibility, especially in Russia, where crop reports are still very incomplete.

CEREAL-CONSUMING COUNTRIES.

One of the most interesting questions relative to the Russian commerce of cereals is to learn which are the consuming countries.

This question is not very easily solved, as neither the Russian custom-house reports, nor the statistics obtained from abroad, give categorical data. The fact is that Russian exporters are very rarely in direct communication with the dealers abroad, and even the largest firms here often make use of foreign intermediaries. It follows that a shipment freighted from St. Petersburg to some London firm does not necessarily go to London, for it frequently happens that a vessel sails for an English port and on the way receives an order to deliver its freight at a port of some other country. Again, most of the cereals exported from the southern ports are "to order," in which case the destination of the goods remains unknown, even at the time the vessel takes to sea.

Moreover, the reports of foreign custom-houses can not be considered as free from errors. It often occurs that officials in countries which import cereals do not trouble themselves to inquire where the cereals come from, and consequently often credit the cargo to the wrong country. It has also happened many times that cargoes of cereals have been accredited to a country wherein they have merely been transshipped in transit. In Belgium and Holland, where duty on cereals has not been established, it is the rule, in order to elude the custom-house formalities, to declare all cereals as imported for local consumption, whereas the re-exporting of such goods forms an important industry. Notwithstanding this fact, the Russian statisticians rely more upon the foreign report figures than on their own statistics. Thus

Russian exporters and custom-house officials do not know that cereals exported, apparently, to Venice or Genoa really find buyers in Switzerland, until the published report of that country furnishes such information.

According to Russian reports, more than one-third of the cereals go to England, whereas, in reality, and according to the German statistics, it is Germany that absorbs the largest portion of Russian cereals. The following table will show the percentage of Russian cereals consumed by various European countries, taking the average exports for the five-year period 1883–'87:

Country.	Per cent.	Country.	Per cent.
Germany	25.36	Belgium	6.34
Great Britian	23.75	Sweden	3
Holland	12.33	Austria-Hungary	2.56
France	9.50	Norway	2.29
Italy	7.37	Denmark	1.30

Germany is the largest purchaser of Russian rye; she alone absorbs nearly the half of her rye exports. In regard to oats and barley, England makes the largest demand, if the figures are correct. Germany, too, buys the largest share of Russian wheat, namely, 475,714 tons; England comes next, demanding 396,964 tons; then Italy, 355,535 tons; France, 284,464 tons; and Holland, 236,250 tons.

During the five-year period 1883–'87, the total quantity of all cereals exported by countries producing an excess has amounted to an annual average of about 14,678,035 tons. On this total the largest supplies have been made by Russia, which exported 5,183,035 tons, or 35 per cent., the United States having supplied 4,858,393 tons of cereals, or 33 per cent. The other exporting countries are ranged as follows:

Country.	Per cent.	Country.	Per cent.
Roumania	8.5	Australia	2.3
India	7.5	Sweden	1.6
Austria-Hungary	4.3	Chili	0.8
Argentine Republic	3.6	Servia	0.2
Canada	2.8		

Russia is almost exclusively the supplier of rye on the foreign markets; she furnishes them 88 per cent. of the total quantity bought from the rye-producing countries, and she also contributes the largest portion of oats, namely, 67 per cent. Sweden comes next, supplying 18 per cent. Russia is also the principal supplier of barley, exporting 52.2 per cent., followed by Austria and Roumania, who contribute, respectively, 26 and 14 per cent.

Concerning cereals denominated "greys," Russia has no fear of competition. The only misfortune which could occur would be the lowering of price, caused by the immense quantity exported and the restrained number of markets demanding these cereals, Germany and the Scandinavian peninsula being the only two markets of any consequence.

Touching the question of international competition, wheat is of the greatest moment, as it is the most important cereal, as much for its intrinsic value as for the quantity supplied each year to European markets. But, although Russia has for the last two years surpassed the United States in the export of wheat, thanks to the abundant crops of 1887 and 1888, still the average of her exports for the five-year period 1883–'87 is below that of the United States. During this period Russian exports of wheat have amounted to 2,102,143 tons, or 25 per cent. per year of the total of all countries, whereas the average exports of the United States of this cereal have amounted to 3,437,679 tons a year, or 42 per cent. Nevertheless, as the language of the minister of finance runs—

> The specter of American competition is not so frightful as it appeared some years ago, because, under the influence of the fall of prices, the farmers of the United States have abstained from extending the cultivation of wheat; and, secondly, the extension of virgin lands in America having decreased, one also sees a decrease in the fruits of the land cultivated.

This statement is based upon the visible decrease in the exports, which were 3,993,750 tons yearly for the five-year period 1879–'83, and which were reduced to 3,150,000 annually for the five following years.

An analogous fact shows itself in British India, where the extensive exports of wheat have been suddenly checked during the last two years.

The following table shows the export of wheat from Russia for the last ten years, compared with those of the United States and India during the same period:

Year.	India.	United States.	Russia.
	Tons.	*Tons.*	*Tons.*
1879	109,285	4,813,394	2,237,143
1880	369,643	4,974,107	985,178
1881	991,607	3,254,463	1,321,071
1882	707,143	3,947,143	2,060,357
1883	1,046,250	2,978,035	2,259,643
1884	789,107	3,538,929	1,782,678
1885	1,047,857	2,524,821	2,475,000
1886	1.108,928	4,106,250	1,391,741
1887	718,035	3,193,393	2,098,928
1888	877,500	2,375,357	3,402,321

If the competition of transcontinental countries does not alarm Russian producers of wheat, it is because the quantity required in Europe is so formidable that no one country could supply the entire amount. The demand for wheat must continue to increase in Europe, whereas the supplies from the United States are decreasing.

According to the averages of the last three years, one can estimate the net freight to London at 9 copecks, or 4½ cents, for the Russian wheat, 10 copecks, or 5 cents, for American, and 22 copecks, or 11 cents, for Indian wheat.

Insurance is another factor that operates against the commerce of Russian cereals as compared with that of her competitors, namely, 5 to 8 copecks, or 2½ to 4 cents, per 36 pounds for American and Indian and 10 to 17 copecks, or 5 to 8 cents, for Russian.

The cost of railway transportation from the center of production to the sea-ports is nearly the same for the three countries. In fact, 36 pounds of wheat, delivered in London, cost the Russian producer for overland transportation 2 copecks, or 1 cent, less than the Indian producer and 8 copecks less than the American producer. But this advantage is more than absorbed by accessory expenses and commissions of all kinds, which eat away the profits of the Russian farmer. In America there is an admirable organization for the commerce of cereals, which can not be hoped for in Russia or India for many years to come. Again, thanks to the excellent means used in the United States of assorting and cleaning wheat, a marked superiority in this cereal over the Russian product exists, although, for its intrinsic qualities, the Russian grain is of a higher order. The preference which American wheat enjoys is shown by the higher prices paid for it in the English market. In 1888 the average price of a pood, or 36 pounds, of American and Indian wheat in London was 126 copecks, or 63 cents, whereas Russian wheat only brought 118 copecks, or 59 cents, for the same quantity. It is interesting to note that at the same time wheat imported from Dantzig was sold at an average of 130 copecks, or 65 cents, per 36 pounds, and, as this place exports Russian wheat chiefly, it proves that it was only necessary to pass it through German hands in order for it to bring in London a higher price than American wheat.

This lack of organization in Russian transportation and in their imperfect methods of assorting and cleaning the grain has placed her cereal commerce on a very unfavorable footing, which may be largely overcome in due time.

To obtain and perpetuate a better organization for the commerce of Russian cereals involves the main question, how to compete successfully with American exporters. The Russian Government, in energetically undertaking to regulate the railway tariff, is looking toward such an improvement. The Government also has undertaken to propagate information at all railway stations relative to the current prices of cereals, and has resolved to loan money to farmers who have grain to sell in proportion to the amount to be marketed, thus taking important steps for solving this practical question. From an American point of view, however, it would seem that there must be an almost radical change in the methods and commercial customs of both farmer and shipper before Russian cereals can successfully compete with those of the United States.

J. M. CRAWFORD,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, February 4, 1890.

No. 114——11.

BEET-SUGAR INDUSTRY OF GERMANY.

REPORT BY CONSUL-GENERAL EDWARDS, OF BERLIN.

INTRODUCTORY.

I have the honor to submit herewith a report relating to the production, fabrication, taxation, and consumption of beet-root sugar in Germany, together with tables marked A, B, C, D, E, F, and G, containing statistical information concerning the condition and progress of the beet-root sugar industry in Germany.

Attention is especially directed to the conditions, modifications, and operations of the material and consumption taxes, as described and explained in the report. The result of the operations of the taxes in question may be seen from an examination of Table A. It will be observed that under the operations of the material tax Hamburg paid nothing, but received, as a rebate on the different classes of exports, the sum of 18,421,851 marks.* The rebate allowances accorded by the federal council are fully explained in the report, and the articles directly affected specified by name.

The beets are planted on land belonging to or rented by the factories. Whenever the factory directors do not plant their own beets, they write down very exactly the rules for cultivation, direct and oversee the manuring and working of the beet fields. The factories purchase only from those who have pledged themselves to cultivate the beets in accordance with fixed regulations.

By reference to the table marked D it will be observed that during the year 1888–'89 the factories raised 53.3 per cent. and purchased 46.7 per cent. of the entire quantity of beets used. The prices, it will be seen by reference to the report, depends upon the percentage of sugar contained in the beet and not, as formerly, upon the weight of the beet. Table D also shows the number of factories in operation from 1871–'72 to 1888–'89. It will be seen, by reference to the same table, that the press system has gradually given way to the diffusion process.

Special mention is made in the report as to improvement introduced in the factories during the year 1888–'89.

I beg to invite your attention to the inclosed clipping from the London Times of January 24, 1890, which pretends to explain the causes of the movement in the prices of sugar during the year 1888–'89.

THE REPORT.

With the beginning of the year 1888–'89 the provisions of the law of July 9, 1887, concerning the taxation of sugar, were put into operation. This law, in addition to the old material tax on the weight of beets used in the fabrication of sugar, imposed a consumption tax on the weight of sugar placed upon the home market. Before August 1, 1888, beet sugar was taxed only to the extent that the raw roots destined to the manufacture of sugar were subject to a weight duty. This duty, in the fiscal years 1886–'87 and 1887–'88, amounted to 1.70 marks on 100 kilograms* of raw beets. In the preceding years, as far back as September, 1869, it was 1.60 marks. The material tax introduced in 1888–'89 amounts to 0.80 mark per 100 kilograms, a decrease of 0.90 mark as compared with the preceding year. But there is, in addition to this, a consumption tax of 12 marks per 100 kilograms of inland beet sugar, that is, on all sugar which is manufactured in inland factories from beets, or products of sugar fabrication (sirup and molasses), or, by further finishing processes, from such sugar (refining, etc.). This consumption tax is due so soon as the sugar passes from the revenue control, under which it has lain during the manufacturing and refining processes, into the open market. Only sirup and molasses are free from this consumption tax, and even upon these the federal council is empowered to impose the consumption tax, partially or in full, when the condition of such drippings is such as to fit them for finer uses. According to section 6 of the law of July 9, 1887, all drippings which in the dry substance contain 70 per cent. or more of sugar are subject to the consumption tax of 12 marks per 100 kilograms.

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*1 mark = 23.8 cents.

The material tax for sugar which is exported beyond the customs frontier, or which is kept in bond in public or private warehouses, when the amount is at least 500 kilograms, is refunded per 100 kilograms as follows:

(*a*) For raw sugar of at least 90 per cent. fine, and for refined sugar containing less than 98 per cent. but at least 90 per cent. of sugar, 8.50 marks.

(*b*) For candies, and for sugars in white, full, hard loaves, blocks, plates, sticks, or cubes, or broken small in the presence of revenue officers; for so-called crystals, or for other white, hard, translucent sugar in crystal form, containing at least 99½ per cent. of sugar, particularly the sort known in trade as granulated; further, for other sugars of at least 99½ per cent. purity, which at any time may be thus classified by the federal council, 10.65 marks.

(*c*) For all other hard sugars, as well as for all white, dry (not containing over 1 per cent. water) sugars in crystal, crumb, or flour form, containing at least 98 per cent. sugar, so long as they do not fall under *b*, 10 marks.

The sugar lying in public or private warehouses, upon payment of the tax, may be placed upon the domestic market.

Upon the exportation of wares in whose manufacture sugar of all sorts described in *a*, *b*, and *c* has been used, or upon the storing of such wares in public or private warehouses, under official surveillance, according to the decision of the federal council, the material tax and the already paid consumption tax on the amount of sugar contained in the wares is to be refunded. The federal council has accorded this privilege to the following articles: Condensed milk, chocolate, conditor's wares (dragées, desert bonbons, marzipau, cakes and similar baked wares, sugared southern and other fruits glazed and candied, as well as fruits preserved in sugar), alcoholic fluids containing sugar, namely, sweetened spirits (liqueurs), as well as fruit juices and brandies cooked with sugar and mixed with alcohol, and, further, to fluid refined sugar and that known in trade as fruit sugar. If such goods are taken from the warehouse where they have been stored in bond, the material and consumption taxes must be paid. For the transition period from August 1 to October 1, 1888, certain lightenings of the new regulations were allowed, and particularly for such cases in which the sugar had been produced before the revenue officers before August 1, and its identity established by its having been stored in bond; or in which the revenue officers, on August 1, in the sugar factory, had made an inventory of the supplies on hand of raw sugar or unfinished wares, and had reckoned the product therefrom of finished sugar; or in which the sugar came from factories which, during the term in question, had not used beets or procured sugar or sugar drippings elsewhere, or only so far as their origin in the preceding fiscal period was beyond doubt. The modifying of the taxes in these cases consisted in this, that upon exportation, or storing in bonded warehouses, a rebate was allowed amounting on 100 kilograms of sugar, class *a*, to 17.25 marks; class *b*, to 21.50 marks; class *c*, to 20.15 marks; or, upon being placed on the inland market, the consumption tax was remitted. For sugar from foreign countries (all kinds, with the exception of sirup and molasses) since August 1, 1888, the import duty has been 30 marks per 100 kilograms. Previously this rate of duty had been only for refined sugar and such raw sugars as reached the Dutch standard No. 19, while other raw sugars paid 24 marks per 100 kilograms. When foreign sugar is introduced for further manufacture in a sugar factory, the amount of the consumption tax (12 marks per 100 kilograms) can be deducted and only 18 marks per 100 kilograms collected in customs duties.

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*1 kilogram = 2.205 pounds.

As in the second half of the year 1887–'88 the condition of sugar prices was not unfavorable, and as, consequently, the coming campaign could be looked forward to with some degree of confidence by the sugar factories, more sugar-beets were planted in 1888 than in the preceding year. If, notwithstanding this, in the year 1888–'89 not more beets were used nor a much larger mass of sugar produced than 1887–'88, these facts were due to the weather of 1888.

The late winter delayed planting, partially, until May. The frequent rains in the months of June and July promoted, it is true, the growth of the beet; but the lack of heat was unfavorable to the development of the sugar ingredients, and the more favorable weather of August could not remedy the injury. If, therefore, the crop in quantity exceeded that of the preceding year, it fell behind in quality, the beet of 1887, according to the reports of Magdeburg officials, having been equaled by that of no previous year in the amount of sugar contained in it. Furthermore, the frosts in the early part of November did great damage, because at that time many of the factories still had a large portion of their beets in the ground. It is true that work was at once begun with the frozen beets, though—a thaw setting in at the end of November—the great supply on hand could not be used with sufficient rapidity. The juices of the thawed-out beets were to such an extent rendered impure by a slimy substance (the so-called beet gum) that they could only with difficulty, and often not at all, be filtered by means of the presses. The cooking in vacuum was also difficult in many factories, so that some of the manufacturers gave up the attempt to use the frozen beets. Similar reports concerning the injuries from frost, which rendered a part of the beet crop useless in sugar fabrication and consequently disturbed business, were made from nearly all the North German directive districts. In general, however, the condition of the beets used was favorable, though their quality did not equal that of the preceding year. In regard to the cultivation and production of beets, no important changes were introduced. As formerly, the beets were either planted on land belonging to or rented by the factories or obtained from others who had pledged themselves to cultivate the beets in accordance with fixed regulations. Whenever the factory directors do not plant their own beets, they write down very exactly the rules for cultivation, direct and oversee the manuring and working of the beet fields. It is more and more becoming the custom of the factories not to pay for the beets by weight, but to take also into consideration the amount of sugar contained. The best delivery contracts fix for a certain price a certain percentage of sugar in the beet, for any thing in excess of which additional prices are paid. Often, moreover, these contracts contain the provision that, if the beets do not produce a certain percentage of sugar, they may be refused. For 100 kilograms of beets from 1.5 to 2.5 marks were paid, the usual price being from 1.8 to 2 marks.

No special technical improvements or inventions are reported as having been practically introduced during the year 1888–'89, though many of the factories were more thoroughly equipped. The improvements were chiefly in the direction of economizing in the use of steam, the strengthening and improvement of the diffusion batteries, the introduction of the process of purifying the juice with sulphurous acid, the adoption of new filter presses, etc. In some factories a new system has been tried, with more or less success, by which raw sugar, by means of systematic washing, is freed from molasses and converted into white sugar fit for consumption.

The manufacture of sugar from molasses, as compared with the preceding year, showed a decline in 1888–'89; in 1887–'88, 167 factories producing sugar from molasses as well as from beets, while in 1888–'89 there were only 115. Of these 45 used the Osmose process (1887–'88, 84; 1886–'87, 55; 1885–'86, 78; 1884–'85, 79; 1883–'84, 115; 1882–'83, 124; and 1881–'82, 135), and probably the use of this costly process would have been still more diminished had it not been for the rise in the prices of sugar, owing to which the price of osmosist sugar at the end of the year was higher than that of the first product at the beginning of the campaign. The elution process is in use in 40 factories (1887–'88, 48; 1886–'87, 46; 1885–'86 and 1884–'85, 51; 1883–'84, 46; 1882–'83, 50; and 1881–'82, 44). The substitution process was used in 5 (1887–'88, 9; 1886–'87, 1885–'86, and 1884–'85, 10; 1883–'84, 13; 1882–'83, 8; 1881–'82, 4). The settling process was used in 2 (1887–'88, 3; 1886–'87, 2; 1885–'86, 4; 1884–'85, 5; 1883–'84, 4; 1882–'83, 6; and 1881–'82, 4). The separation process was used in 20 (1887–'88, 20; 1886–'87, 17; 1885–'86, 16; 1884–'85, 13; and 1882–'83, 2). The strontian process was in use in 3 (1887–'88, 1886–'87, 1885–'86, 1884–'85, and 1883–'84, each 3). In regard to the costs of fabrication, only to a limited extent were reports made, and these were calculated differently. In general, however, it appears that these expenses were somewhat larger than in the preceding year, because the beet price and, to an extent, the wages of labor were higher. In comparison with the preceding year the saving in the beet tax (0.90 mark on the 100 kilograms, see above) more or less equalized the increase in costs of production. From the beginning of the campaign until December sugar prices fell not inconsiderably, but in that month they recovered again somewhat and remained at about the same height during the two following months. From the month of March on, however, the influence of a high-price union (sugar trust) in Magdeburg made itself felt, and prices rose very high, though in July a very great fall followed. The price rise in the spring of 1889 occasioned the unusual circumstance that most of the factories were able to dispose of their seconds for higher prices than they got for their first products.

A.—*Amount of tax on inland sugar and customs duty on foreign sugar, together with the amount of sugar products placed in the open market in the year 1888–'89.*

District.	Income from material tax.			
	Sugar material tax (beet tax).			Material tax for sugar and wares containing sugar (taxes paid on wares taken from warehouses).*
	Gross receipts.	Less for exported or warehoused sugar.*	Net receipts.	
	Marks.	*Marks.*	*Marks.*	*Marks.*
East Prussia	271,028	127,601	143,427	....
West Prussia	2,981,311	5,479,886	−2,498,575	5,822
Brandenburg	1,263,948	124,412	1,139,536	....
Pomerania	1,258,418	3,329,910	−2,071,492	489,521
Posen	3,820,274	1,042,560	2,777,714	....
Silesia	8,197,265	4,939,389	3,257,876	836,452
Province of—				
Saxony	22,224,126	21,534,662	689,464	2,976,711
Schleswig-Holstein	192,933	1,317,502	−1,124,569	707,797
Hanover	6,769,688	3,060,912	3,708,776	46,617
Westphalia	747,972	168,858	579,114	7,173
Hessen-Nassau	529,964	172,181	357,783	....
Rhineland	2,002,642	5,126,977	−3,124,335	771,825
Total, Prussia	50,259,569	46,424,850	3,834,719	5,841,918
Bavaria	161,560	5,122,442	−4,960,882	2,194,804
Saxony	565,356	11,659	553,697	....
Würtemburg	454,568	9,516	445,052	4,680
Baden	175,672	712,764	−537,092	206,396

* As classified in section 6 of the law of July 9, 1887.

A.—*Amount of tax on inland sugar and customs duty on foreign sugar, etc.*—Continued.

District.	Income from material tax.			
	Sugar material tax (beet tax).			Material tax for sugar and wares containing sugar (taxes paid on wares taken from warehouses).*
	Gross receipts.	Less for exported or warehoused sugar.*	Net receipts.	
	Marks.	*Marks.*	*Marks.*	*Marks.*
Hessen	514,336	252,920	261,416	....
Mecklenburg	1,027,727	81,107	946,620	258
Thuringia	1,086,325	41,535	1,044,790	....
Brunswick	4,824,736	3,515,353	1,309,383	130,659
Anhalt	4,099,669	2,958,747	1,140,922	138,701
Lübeck	....	2,783	—2,783	....
Bremen	....	2,520,526	—2,520,526	....
Hamburg	....	18,421,851	—18,421,851	5,625
Total for German customs district	63,169,518	80,076,053	—16,905,535	8,522,450

District.	Income from consumption tax.			Receipts from customs duties on foreign sugar.	Total receipts.
	Gross receipts.	Less for exported or warehoused wares.	Net receipts.		
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*
East Prussia	260,032	....	260,032	4,035	407,494
West Prussia	312,746	....	312,746	17,730	—2,162,277
Brandenburg	712,143	....	712,143	29,370	1,881,049
Pomerania	393,926	....	393,926	39,330	—1,148,715
Posen	693,995	....	693,995	660	3,472,369
Silesia	7,140,226	....	7,140,226	9,405	11,243,959
Province of—					
Saxony	8,371,303	....	8,371,303	35,745	12,073,223
Schleswig-Holstein	1,158,354	....	1,158,354	58,410	799,992
Hanover	1,020,555	....	1,020,555	76,965	4,852,913
Westphalia	137,751	....	137,751	2,100	726,138
Hessen-Nassau	86,552	....	86,552	17,625	461,960
Rhineland	5,191,583	....	5,191,583	104,235	2,943,308
Total, Prussia	25,479,166	....	25,479,166	395,610	35,551,413
Bavaria	3,924,682	22,395	3,902,287	74,280	1,209,889
Saxony	645,213	841	644,372	38,355	1,236,424
Würtemburg	736,921	....	736,921	3,075	1,189,737
Baden	1,210,311	....	1,210,311	105,318	984,933
Hessen	261,925	....	261,925	613,359	1,136,700
Mecklenburg	732	....	732	12,510	960,120
Thuringia	517,649	....	517,649	1,980	1,564,419
Oldenburg	....	....	....	795	795
Brunswick	2,485,930	....	2,485,930	15,855	3,941,827
Anhalt	1,692,067	....	1,692,067	90	2,971,780
Lübeck	....	....	....	26,820	24,037
Bremen	813	....	813	33,960	—2,485,753
Hamburg	69,482	....	69,482	57,735	—18,289,009
Alsace-Lorraine	....	....	....	90,450	90,450
Luxemburg	....	....	....	7,305	7,305
Total for German customs district	37,024,891	23,236	37,001,655	1,477,497	30,095,067

*As classified in section 6 of the law of July 9, 1887.

A.—*Amount of tax on inland sugar and customs duty on foreign sugar, etc.*—Continued.

District.	In the open market.			
	Inland beet sugar.		Sirup and molasses paying consumption tax.	Total.
	Paying consumption tax.	Not paying consumption tax.		
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*
East Prussia	21,670	....	....	21,670
West Prussia	26,062	1,609	....	27,671
Brandenburg	59,345	10,129	....	69,474
Pomerania	32,816	12,471	12	45,299
Posen	57,833	4,066	....	61,899
Silesia	595,031	57,701	....	652,732
Province of—				
Saxony	697,581	83,861	....	781,442
Schleswig-Holstein	96,530	33,976	....	130,506
Hanover	85,048	3,335	....	88,383
Westphalia	11,510	254	25	11,789
Hessen-Nassau	7,213	312	....	7,525
Rhineland	432,389	....	249	432,638
Total, Prussia	2,123,028	207,714	286	2,331,028
Bavaria	327,063	75,314	....	402,377
Saxony	53,467	16,385	302	70,154
Würtemburg	61,416	24,914	....	86,335
Baden	100,859	40,918	....	141,777
Hessen	21,827	196	....	22,023
Mecklenburg	61	....	....	61
Thuringia	43,138	9,639	....	52,777
Brunswick	207,164	40,284	....	247,448
Anhalt	141,007	39,003	3	180,013
Bremen	68	....	....	68
Hamburg	5,149	298	641	6,088
Total for German customs district	3,084,247	454,670	1,232	3,540,149

B.—*German sugar trade with foreign countries in 1888–'89.*

IMPORTATION.

Country.	Refined sugar, all sorts.	Raw sugar.	Sirup.	Molasses.	Glucose, starch, sugar, and sirup.
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*
Parts of Germany not in Zollverein	961	323	5,605	....	31
Belgium	2,213	519	1	....	31
Denmark	66	111	74	....	....
France	2,315	157	618	....	11
Great Britain	3,104	11,985	13,206	....	100
Italy	2	99	....	....	....
Netherlands	9,889	5,517	587	....	14
Russia	7	52	2	....	....
Sweden	1	....	....	....	....
Switzerland	50	....	2	....	2
Asia	306	1,168	....	....	....
America	142	149	1,123	2	32
Other lands	22	84	21	....	3
Total	19,078	20,164	21,239	2	224
Total in 1887–'88	13,314	43,274	26,837	5	145

B.—*German sugar trade with foreign countries in 1888–'89*—Continued.

EXPORTATION.

Country.	Sugar of the rebate classes.			Sugar for which rebates are not provided.	Sirup.	Molasses.	Glucose, starch, sugar, and sirup.
	(*a*.)	(*b*.)	(*c*.)				
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*
Parts of Germany not in Zollverein	1,035,158	475,015	74,948	154	2,899	15,532	20,239
Belgium	8,244	45,521	1,682	88	16	31,961	230
Denmark	9,426	17,703	4,693	2	53	....	1,009
France	....	102	....	63	....	180,362	11
Great Britain	2,322,199	735,253	36,782	9	2,330	747	95,870
Italy	....	57	....	....	....	2,142	4
Netherlands	483,472	59,210	1,379	60	89	....	171
Norway	....	30,604	5,368	2	154	2,356	240
Roumania	50	33,427	1,596	....	25	....	1,319
Russia	2,113	47,847	3,061	8	81	....	93
Sweden	98,942	80,828	4,252	6	84	2,919	765
Switzerland	838	95,818	....	10	297	3,171	2,340
Asia	....	331	....	4	2	....	....
America	158,845	15,917	21,068	16	108	7	4,639
Other lands	4,955	3,885	1,677	31	353	11	3,236
Total	4,124,242	1,641,518	156,506	453	6,491	239,208	130,166
Total in 1887–'88	3,447,108	1,322,128	207,438	546	3,043	572,420	259,444

C.—*Results of the beet-sugar fabrication in the German customs territory.*

Business year.	Produced from taxed beets.			
	Sugar in mass.	Salable products.		
		Raw sugar of all sorts.	Molasses.	Total.
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*
1871–'72	2,629,931	1,864,419	638,917	2,503,336
1872–'73	3,716,170	2,625,511	915,887	3,541,398
1873–'74	4,121,142	2,910,407	1,058,183	3,968,590
1874–'75	3,680,442	2,564,124	976,028	3,540,152
1875–'76	5,028,183	3,580,482	1,339,524	4,920,006
1876–'77	4,055,036	2,894,227	1,111,011	4,005,238
1877–'78	5,155,951	3,780,091	1,228,128	5,008,219
1878–'79	5,761,803	4,261,551	1,336,515	5,598,066
1879–'80	5,544,094	4,094,152	1,313,709	5,407,861
1880–'81	7,393,360	5,559,151	1,649,842	7,208,993
1881–'82	7,740,044	5,997,222	1,508,129	7,505,351
1882–'83	10,935,556	8,319,953	1,963,047	10,283,000
1883–'84	12,168,794	9,401,093	2,079,781	11,480,874
1884–'85	14,486,187	11,230,303	2,596,997	13,827,300
1885–'86	10,257,772	8,081,049	1,801,775	9,882,824
1886–'87	12,459,832	9,856,278	2,158,872	12,015,150
1887–'88	11,239,290	9,106,984	1,830,369	10,937,353
1888–'89	11,653,469	9,445,046	2,011,890	11,456,936

C.—*Results of the beet-sugar fabrication in the German customs territory*—Continued.

Business year.	Produced from 100 kilograms of taxed beets.				Produced from 100 kilograms of sugar in mass.		Quantity of beets required for production of 100 kilograms of raw sugar.
	Sugar in mass.	Salable products.					
		Raw sugar of all sorts.	Molasses.	Total.	Raw sugar of all sorts.	Molasses.	
	Kilos.	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*100 kilos.*
1871–'72	11.68	8.28	2.84	11.12	70.89	24.29	12.07
1872–'73	11.68	8.25	2.88	11.13	70.65	24.65	12.11
1873–'74	11.68	8.25	3	11.25	70.62	25.68	12.12
1874–'75	13.35	9.30	3.54	12.84	69.67	26.52	10.75
1875–'76	12.08	8.60	3.22	11.82	71.21	26.64	11.62
1876–'77	11.42	8.15	3.13	11.28	71.37	27.40	12.27
1877–'78	12.60	9.24	3	12.24	73.32	23.82	10.82
1878–'79	12.45	9.21	2.89	12.10	73.96	23.20	10.86
1879–'80	11.54	8.52	2.73	11.25	73.85	23.70	11.74
1880–'81	11.69	8.79	2.61	11.40	75.19	22.32	11.37
1881–'82	12.34	9.56	2.40	11.96	77.48	19.48	10.46
1882–'83	12.50	9.51	2.24	11.75	76.08	17.95	10.51
1883–'84	13.65	10.54	2.33	12.87	77.25	17.09	9.49
1884–'85	13.93	10.79	2.50	13.29	77.52	17.93	9.26
1885–'86	14.51	11.43	2.55	13.98	78.78	17.56	8.75
1886–'87	15	11.87	2.60	14.47	79.10	17.33	8.43
1887–'88	16.14	13.08	2.63	15.71	81.03	16.29	7.65
1888–'89	14.76	11.96	2.55	14.51	81.05	17.26	8.36

D.—*Production and use of beets.*

[The years from 1871–'72 to 1879–'80 are reckoned from September 1 to August 31; the year 1880–'81 is reckoned from September 1 to July 31; the following years are reckoned from August 1 to July 31.]

Year	Number of factories in operation.	Steam machines used.		Number of factories using the different processes.		
		Number.	Horse-power.	Diffusion.	Press system.	Other systems.
1871–'72	311	1,921	18,162	52	216	43
1872–'73	324	2,076	19,923	63	220	41
1873–'74	337	2,203	21,954	80	214	43
1874–'75	333	2,233	22,712	113	181	39
1875–'76	332	2,300	23,325	157	137	38
1876–'77	328	2,370	24.923	197	98	33
1877–'78	329	2,413	25,788	224	81	24
1878–'79	324	2,493	26,882	258	50	16
1879–'80	328	2,627	29,586	291	28	9
1880–'81	333	2,812	32,269	309	20	4
1881–'82	343	3,046	35,476	324	16	3
1882–'83	358	3,365	40,515	343	12	3
1883–'84	376	3,715	46,158	368	6	2
1884–'85	408	4,196	56,119	402	4	2
1885–'86	399	4,188	57,194	395	3	1
1886–'87	401	4,276	58,770	397	3	1
1887–'88	391	4,292	58,325	387	3	1
1888–'89	396	4,363	60,313	393	3	....

D.—*Production and use of beets*—Continued.

Year.	Beets used.			Proportion to whole amount of beets used.	
	Cultivated by factory owners.	Purchased.	Total.	Raised.	Purchased.
	100 kilos.	*100 kilos.*	*100 kilos.*	*Per cent.*	*Per cent.*
1871–'72	15,043,510	7,465,672	22,509,182	66.8	33.2
1872–'73	21,013,014	10,802,494	31,815,508	66	34
1873–'74	24,209,086	11,078,553	35,287,639	68.6	31.4
1874–'75	19,080,947	8,486,504	27,567,451	69.2	30.8
1875–'76	28,363,068	13,249,774	41,612,842	68.2	31.8
1876–'77	24,901,537	10,598,829	35,500,366	70.1	29.9
1877–'78	28,727,752	12,181,928	40,909,680	70.2	29.8
1878–'79	31,140,298	15,147,179	46,287,477	67.3	32.7
1879–'80	28,505,861	19,546,754	48,052,615	59.3	40.7
1880–'81	38,716,787	24,505,243	63,222,030	61.2	38.8
1881–'82	34,317,535	28,401,944	62,719,479	54.7	45.3
1882–'83	44,486,318	42,985,219	87,471,537	50.9	49.1
1883–'84	42,050,639	47,130,664	89,181,303	47.2	52.8
1884–'85	49,362,459	54,664,424	104,026,883	47.5	52.5
1885–'86	41,990,474	28,712,694	70,703,168	59.4	40.6
1886–'87	44,360,835	38,705,877	83,066,712	53.4	46.6
1887–'88	37,976,517	31,663,089	69,639,606	54.5	45.5
1888–'89	42,099,419	36,862,411	78,961,830	53.3	46.7

Year.	Amount of land from which beets raised by factory owners were harvested.	Amount produced per hectare.	Number of days' (12 hours) work consumed in process of extraction.	Amount of beets used in each day's work.
	Hectares.	*100 kilos.*		*100 kilos.*
1871–'72	73,690	204	64,451	349
1872–'73	82,590	254	87,677	363
1873–'74	88,877	272	91,254	387
1874–'75	92,655	206	70,020	394
1875–'76	96,724	293	91,675	454
1876–'77	98,725	252	70,608	503
1877–'78	104,783	274	75,320	543
1878–'79	107,679	289	75,895	610
1879–'80	113,003	252	70,909	678
1880–'81	118,431	327	82,052	771
1881–'82	121,256	283	76,325	821
1882–'83	129,262	344	94,816	923
1883–'84	140,843	299	89,956	991
1884–'85	150,077	329	97,065	1,072
1885–'86	138,869	302	65,642	1,077
1886–'87	147,782	300	72,593	1,144
1887–'88	143,853	264	59,856	1,163
1888–'89	149,411	282	67,727	1,183

E.—*German importation and exportation of sugar.*

IMPORTED.

Year.	Refined sugar.	Raw sugar.	Sirup and dutiable molasses.	Molasses for fabrication of spirits.
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*
1871-'72	127,305	315,832	73,298	81,341
1872-'73	124,886	97,562	69,323	23,716
1873-'74	161,483	84,148	61,021	50,422
1874-'75	141,010	89,133	56,587	50,335
1875-'76	145,273	24,526	48,397	4,748
1876-'77	77,097	10,172	53,189	28,600
1877-'78	49,153	11,674	41,028	7,054
1878-'79	39,012	15,304	38,329	31,827
1879-'80	29,831	16,764	28,996	72,369
1880-'81	22,654	12,652	33,220	48,510
1881-'82	22,016	15,049	33,139	4,588
1882-'83	21,038	23,705	35,369	3,611
1883-'84	15,577	18,763	32,216	1,695
1884-'85	12,683	20,668	33,372	2,816
1885-'86	12,300	26,203	28,942	....
1886-'87	14,618	15,675	27,166	2
1887-'88	15,799	40,789	26,842	....
1888-'89	19,078	20,164	21,241	....

EXPORTED.

Year.	With export rebate.			Sugar without export rebate.	Molasses and sirup.
	Raw sugar, etc.	Candy sugar, etc.	Other hard sugars, etc.		
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*
1871-'72	56,665	41,763	16,328	19,394	8,563
1872-'73	81,777	51,331	28,472	8,043	35,559
1873-'74	118,092	41,120	26,310	21,182	79,363
1874-'75	28,838	39,452	15,359	16,531	79,829
1875-'76	458,942	47,125	25,329	19,588	84,588
1876-'77	462,189	73,935	43,423	9,857	122,624
1877-'78	712,010	140,013	83,416	6,764	148,744
1878-'79	1,034,718	193,561	113,966	2,243	174,507
1879-'80	951,616	252,364	97,052	2,073	171,576
1880-'81	2,214,420	353,787	206,814	1,056	160,782
1881-'82	2,539,310	399,160	144,130	615	211,183
1882-'83	3,907,027	493,811	242,181	646	141,473
1883-'84	4,911,761	642,469	298,679	597	255,381
1884-'85	5,537,931	760,154	318,852	403	650,618
1885-'86	4,040,715	666,196	205,689	365	551,206
1886-'87	4,896,801	1,303,789	238,828	414	245,908
1887-'88	3,447,108	1,322,128	297,438	546	575,463
1888-'89	4,124,242	1,641,518	156,506	453	245,699

F.—*Average prices per 100 kilograms of sugar and molasses during the year ending July 31, 1889.*

[The prices for raw sugar are quoted without, for refined sugar with, the consumption tax.]

As reported by trade corporations.	August.	September.	October.	November.	December.	January.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Raw sugar:						
Brunswick, corn, 92 per cent. fine	47.30	48.00	34.65	34.68	36.38	36.38
Halle, corn, 92 per cent. fine	47.60	36.70	34.60	34.65	36.75	36.35
Cologne, light corn, of 96 per cent. polarization	49.80	50.40	36.92	37.15	38.16	37.84
Magdeburg, I product, corn, 92 per cent. fine	48.00	37.15	34.54	34.68	36.70	36.34
Stettin, 96 per cent. polarization	48.50	37.00	35.00	36.00	35.00	35.00
Refined sugar:						
Brunswick, ff melis (loaf)	58.75	59.00	58.63	58.00	58.75	58.63
Halle, fine (loaf)	58.50	58.50	58.20	57.80	58.50	58.00
Cologne, with small etiquettes	60.70	60.62	59.90	59.37	59.83	59.70
Magdeburg, fine (loaf)	57.90	58.00	....	56.80	57.50	57.19
Stettin, Ia loaf	62.00	62.00	61.00	63.00	63.00	62.00
Molasses:						
Brunswick, unosmosirt, 43° Bé., without tun	6.00	6.00	6.08	7.40	7.35	6.45
Halle, unosmosirt, without tun	5.80	5.80	5.80	6.20	6.05	6.25
Magdeburg, without tun for spirit fabrication	4.72	4.80	4.80	4.80	....	....

As reported by trade corporations.	February.	March.	April.	May.	June.	July.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Raw sugar:						
Brunswick, corn, 92 per cent. fine	36.70	41.05	48.63	....	....	....
Halle, corn, 92 per cent. fine	36.70	41.05	50.05	50.70	....	....
Cologne, light corn, of 96 per cent. polarization	38.72	43.15	51.60	55.17	60.95	58.38
Magdeburg, I product, corn, 92 per cent. fine	36.71	41.09	49.80	52.21	....	51.00
Stettin, 96 per cent. polarization	37.75	43.50	50.00	53.00	57.00	50.00
Refined sugar:						
Brunswick, ff melis (loaf)	58.63	61.50	69.63	74.00	74.60	75.25
Halle, fine (loaf)	58.00	61.60	70.25	74.30	76.15	76.50
Cologne, with small etiquettes	59.00	64.00	71.50	75.50	78.25	79.00
Magdeburg, fine (loaf)	56.92	61.00	69.81	....	75.41	74.58
Stettin, Ia loaf	63.50	69.00	72.00	76.00	86.00	79.00
Molasses:						
Brunswick, unosmosirt, 43° Bé., without tun	6.15	6.10	7.16	7.50	7.68	7.80
Halle, unosmosirt, without tun	6.20	6.15	7.00	7.55	7.80	....
Magdeburg, without tun for spirit fabrication	5.80	5.47	5.40	7.10	6.50	....

G.—*Consumption of sugar and amount of sugar taxation in the German customs territory.*

Year.	Production of raw sugar.	Importation of sugar, reduced to the basis of raw sugar.	Total.	Exportation of sugar, reduced to the basis of raw sugar.	Consumption of sugar.	Consumption per head of population.
	100 kilos.	*100 kilos.*	*100 kilos.*	*100 kilos.*	*100 kilos.*	*Kilos.*
1871-'72	1,864,419	496,332	2,360,751	142,757	2,217,994	5.5
1872-'73	2,625,511	270,852	2,896,363	179,382	2,716,981	6.6
1873-'74	2,910,407	289,530	3,199,937	216,550	2,983,387	7.2
1874-'75	2,564,124	276,907	2,841,031	108,134	2,732,897	6.5
1875-'76	3,580,482	212,532	3,793,014	561,209	3,231,805	7.6
1876-'77	2,894,227	125,060	3,019,287	603,538	2,415,749	5.6
1877-'78	3,780,091	88,830	3,868,921	967,785	2,901,136	6.7
1878-'79	4,261,551	79,710	4,341,261	1,380,768	2,960,493	6.7
1879-'80	4,094,152	65,842	4,159,994	1,344,857	2,815,137	6.3
1880-'81	5,559,151	56,073	5,615,224	2,839,039	2,776,185	6.8
1881-'82	5,997,222	57,330	6,054,552	3,144,103	2,910,449	6.4
1882-'83	8,319,953	66,012	8,385,965	4,725,514	3,660,451	8.1
1883-'84	9,401,093	53,761	9,454,854	5,958,144	3,496,710	7.7
1884-'85	11,230,303	53,035	11,283,338	6,737,274	4,546,064	9.9
1885-'86	8,081,049	55,745	8,136,794	5,003,215	3,133,579	6.8
1886-'87					3,614,756	7.7
1887-'88					3,981,631	8.4
1888-'89					3,575,975	7.4

Year.	Taxes.					
	Taxes on beets and sugar.	Customs duty.	Total.	Tax rebates.	Net receipts.	Per head of population.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
1871-'72	36,015,000	12,498,000	48,513,000	3,322,000	45,191,000	1.12
1872-'73	50,905,000	7,127,000	58,032,000	3,226,000	54,806,000	1.33
1873-'74	56,460,000	7,779,000	64,239,600	3,593,000	60,646,000	1.46
1874-'75	44,108,000	7,218,000	51,326,000	1,651,000	49,675,000	1.18
1875-'76	66,581,000	5,672,000	72,253,000	9,004,000	63,249,000	1.49
1876-'77	56,800,000	3,354,000	60,154,000	11,618,000	48,536,000	1.13
1877-'78	65,456,000	2,369,000	67,825,000	18,009,000	49,816,000	1.15
1878-'79	74,060,000	2,112,000	76,172,000	25,627,000	50,545,000	1.15
1879-'80	76,875,000	1,730,000	78,605,000	24,399,000	54,206,000	1.22
1880-'81	101,164,000	1,481,000	102,645,000	56,496,000	46,149,000	1.12
1881-'82	100,351,000	1,518,000	101,869,000	44,992,000	56,877,000	1.25
1882-'83	139,955,000	1,730,000	141,685,000	74,398,000	67,287,000	1.47
1883-'84	142,690,000	1,401,000	144,091,000	96,302,000	47,789,000	1.04
1884-'85	166,443,000	1,379,000	167,822,000	128,453,000	39,369,000	.86
1885-'86	113,125,000	1,435,000	114,560,000	90,068,000	24,492,000	.53
1886-'87	141,213,000	1,232,000	142,445,000	108,821,000	33,624,000	.72
1887-'88	118,387,000	1,858,000	120,245,000	105,568,000	14,677,000	.31
1888-'89	108,694,000	1,477,000	110,171,000	80,076,000	30,095,000	.62

W. H. EDWARDS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, February 9, 1890.

CAUSES OF THE MOVEMENT IN THE PRICE OF SUGAR.

[Inclosure in Consul-General Edwards's report—from the London Times, January 24, 1890.]

The course of prices, in following first an upward and afterwards a downward movement, has, as nearly as possible, divided the year equally. Beginning at the moderate figure of 13*s.* 9*d.* for beet-root, basis 88 per cent. f. o. b. Hamburg, the value advanced with steadiness until the first week in April, when it reached 17*s.* 6*d.* per cwt. From that time onward to the first week in July the legitimate price of the article was enhanced to the extent of 7*s.* 9*d.*, which thus raised the price to 25*s.* 3*d.*, while the speculative or paper value was, within the same period, increased by hasty and panic-like strides to 28*s.* 4½*d.* The first half of the year was thus a period to be remembered, although from the sequel it can be no longer doubtful that the excitement was not supported by any adequate reason. It can not be said, however, that some increase—that, for instance, which had accrued down to the first week in April—was unwarranted. The visible supplies had then diminished so far as to indicate a deficiency of about 300,000 tons as compared with the stock at the corresponding period of 1888; and, although this relative deficiency was not likely to be maintained throughout the year, the trade was then looking in a hopeful attitude for a final solution of the bounty question. Every thing, in fact, seemed to favor the anticipation that the price of 17*s.* 6*d.* which then obtained might at least prove the minimum for future calculations; and, perhaps, this expectation might have been substantially realized but for what followed. On the 11th of April Baron de Worms, whose prominence in the sugar convention had gained for him very general confidence and approval, in laying the results of the convention before the House of Commons, incautiously committed himself to the statement that "during the summer months there would be an actual scarcity of sugar, and that famine prices might have to be paid." This statement, made, as he expressed it, "on the best possible authority—the authority of the first broker in sugar in the city of London," was eagerly accepted and acted upon by the trade, by speculators, and by a Magdeburg syndicate; and to this statement is traceable almost entirely the excitement which led to the succeeding advance of about £11 per ton, which brought beet-root to the price of 28*s.* 4½*d.* per cwt. in July. But as the prediction was fallacious, and as the relative deficiency in the visible supplies did not point to an approaching famine, more than one-half of this sentimental advance was lost before the end of that month, and by the close of August it had altogether disappeared. The syndicate had all along been the mainstay of this movement, and by its persistent operations in ready produce the stock in the continental markets was so much within its grasp that sales of considerable quantities of sugar were made in this country for transshipment thither for refining purposes. Its accumulations, however, soon became too heavy, and, difficulties arising in regard to the settlement of its differences, a drop of fully 8*s.* per cwt. in July and 5*s.* in August allowed legitimate transactions to be resumed at the end of the latter month at 15*s.* 1½*d.* per cwt. Values were thus brought 13*s.* 3*d.* under the highest point, and 2*s.* 4½*d.* below the figure at which they stood when Baron de Worms startled the world with the prophecy of his broker friend. From the beginning of August to the end of October, the course of values being then governed by the ever-increasing estimates of the new crop, prices steadily tended downward. The lowest point of the year, or 11*s.* 1½*d.* per cwt., was reached in the last week of October. Since then, upon an evident consensus of opinion against the realization of these estimates, or from the conviction that the reaction or retribution following the ill-judged famine scare was too severe, the decline in values has been arrested, so that at the close of the year the price stands at 11*s.* 7½*d.*, or 6*d.* per cwt. above the minimum point. The average price of beet-root this year has been 16*s.* 11*d.* per cwt., against 14*s.* 3*d.* in 1888, 12*s.* 2*d.* in 1887, 12*s.* in 1886, 14*s.* in 1885, 13*s.* 11*d.* in 1884, and 20*s.* 1½*d.* in 1883. The closing price of 11*s.* 7½*d.* per cwt. is 2*s.* 7½*d.*, 6½*d.*, 4½*d.*, 2*s.* 4½*d.*, 2*s.* 3½*d.*, and 8*s.* 6*d.* per cwt. under the respective averages of those years, and 4*s.* 7½*d.*, 4*s.* 4½*d.*, 4*s.* 1½*d.*, 5*s.* 1½*d.*, 6*s.* 9*d.*, and 10*s.* per cwt. under their highest points; and this certainly represents a safe figure with which to begin a new account. As regards cane sugars, Javas only were dealt in to any considerable extent, and these, at the opening of the year, stood at 16*s.* 9*d.* per cwt., floating conditions, landing weights. The value, then, following the course of that of beet-root, steadily advanced to 19*s.* 7½*d.* on April 10, while from that time onward to June 14 it rapidly rose to 25*s.*, which was the highest price obtained. In the absence of sales, the nominal value, as compared with that of beet-root, rose to 25*s.* 3*d.* in July, and from that time the quotation was quickly reduced to 17*s.*, and finally to 14*s.* 3*d.* At the close 14*s.* 6*d.* may nominally be regarded as the value.—[*Messrs. James Dunn's Review.*]

WELSH MOUNTAIN SHEEP.

REPORT BY CONSUL JONES, OF CARDIFF.

Sheep farming is a somewhat important branch of agriculture in the mountainous districts of Wales. The farms vary in area from 500 to 15,000 acres.

The average cost per sheep a year to the breeder—every thing included—is from 72 to 84 cents on the Welsh hills. The average proportion of sheep to shepherds is from 1,000 to 2,500 sheep to each man, which depends upon the nature of the farm.

Shepherds are paid from $97.20 to $121.50 a year, with board and lodging. The average weight of fleece is 1½ pounds, and the quality and quantity of the wool depend a good deal upon the seasons.

Breeders receive on an average from 14 to 17 cents per pound for wool. The average size of a flock is from 500 to 10,000. The sheep are never kept under shelter.

The character of food is grass and heath, such as is found on the Welsh hills. The proportional annual loss from exposure and neglect of sheep depends upon the season.

During the forty years' experience of a sheep farmer in this country the greatest loss was one sheep in four, and during the best seasons two in a hundred.

The loss in lambs during bad seasons is stated at one lamb raised for three ewes; good season, sixteen lambs for twenty ewes.

The change noticed in sheep taken to graze upon better land than our Welsh hills is that they will grow much larger, while the quality of the wool will also improve. The cause of this change is the quality of the fodder and the nature of the climate.

EVAN R. JONES,
Consul.

UNITED STATES CONSULATE,
Cardiff, February 3, 1890.

ANOTHER GERMAN STEAM-SHIP SUBSIDY.

REPORT BY CONSUL-GENERAL MASON, OF FRANKFORT-ON-THE-MAIN.

In a recent report from this consulate-general some account was given of the subsidized steam-ship lines from Bremen to China and Australia, respectively, and the branch line from Brindisi to Port Said and Alexandria, which are now being operated by the North German Lloyd Steam-ship Company, under a ten-year contract with the Imperial Government. It was further stated that so successful had this enterprise proved that the thirteen voyages specified annually for each line were no longer sufficient to accommodate the largely augmented traffic, and that urgent demands were being presented for an increased service, particularly on the line to eastern Asia. Besides this, two new projects have been announced within the past few days which promise, when fully developed, to re-enforce and improve in an important degree the steam-ship system with which Germany is now reaching out to new markets and wider commercial relations.

There is now under discussion in the Bundesrath at Berlin a bill to empower the imperial chancellor to conclude a contract with any responsible German navigation company for a regular monthly steam-ship service between Hamburg and the German colonies in eastern Africa. The compact is to be for ten years, and the terminal port of the new line will probably be Cape Natal or Delagoa Bay, it being further specified that the steamers shall touch, en route, at one Dutch, Belgian, and Portuguese port, respectively. These ports are to be hereafter designated by the chancellor, but it is presumed that they will be Amsterdam, Antwerp, and Lisbon. The prescribed speed is an average of not less than 10½ knots per hour, and penalties are specified for failure through undue cause to follow the designated schedule. The new measure is, in fact, based upon the contract made in 1885 with the North German Lloyd Company for the lines to China and Australasia, the successes of which have suggested and inspired this later enterprise. For this proposed service—thirteen voyages per annum to Delagoa Bay and return, with the intermediate stoppages as above stated—the Imperial Government is to pay a yearly subsidy of 900,000 marks, equal to $214,200. That this measure will be adopted and go into immediate effect is as nearly certain as any thing in the future can well be. Germany is to-day absorbed and controlled by an aggressive mercantile spirit which is almost American in its restless energy, and far more than American in its grasp of the essential conditions of a vigorous foreign trade and the courageous enterprise with which it provides the necessary facilities for developing and sustaining it.

German interests in southeastern Africa have reached a stage at which rapid and regular communications with the Fatherland are essential, and public opinion in this country, which does not frighten at the word "subsidy," is unanimous in demanding that the Government shall provide them in the most prompt and effectual way.

The second project is an improvement in the route of the already existing weekly line from Brindisi to Alexandria, as provided for by the contract of March, 1885. Under the energetic, intelligent lead of Mr. C. A. von Engelbrechten, who has been the pioneer of German trade in the Levant, the mercantile corporations of Germany are now moving to obtain a transfer of the termini of the Mediterranean line from Brindisi and Alexandria to Salonica and Port Said, respectively. The reasons which make this change desirable are that business of all kinds in southern Italy is languishing, and freights and travel between that country and Egypt are consequently limited, while Salonica is, on the contrary, prosperous and rapidly becoming the mart of a thriving trade. Moreover, the present rapid railway service between Austria and European Turkey makes Salonica a very advantageous point for embarking and landing passengers and mails to and from Australia and eastern Asia. It is estimated that by the proposed change a saving of three days in time would be made over the present arrangement, which fixes the terminus of the branch line at Brindisi. But the more important consideration seems to be that European Turkey is good fighting ground for German trade, while Italy, notwithstanding all political affiliations, is, in that respect, practically worthless. The Hamburg Chamber of Commerce, in its memorial urging the Government to authorize the proposed change of route, says:

> The nations in the Balkan peninsula and the Levant — Greece, Servia, Bulgaria and Roumania, European Turkey and Asiatic Turkey — some of which are making great progress, are well worth the trouble of being worked energetically on behalf of German trade and industry. At present those countries are exploited in an overwhelming proportion by the English and French, who jealously strive to hinder the entry of German commerce.

To a practical man like Mr. von Engelbrechten, whose successful establishment of a German steam-ship line between German North Sea ports and the mouth of the Danube entitles his opinion to respect, there seems to be no difficulty in grafting a prosperous foreign trade upon the sturdy stock of a protective home tariff, provided the offshoot can be sustained and rendered independent of foreign means of transport by regular and competent shipping facilities in German hands and under the imperial flag. There are some things which a progressive people can better afford to do for itself than to have done by others, and among these is prominently the transportation of mails, freight, and commercial travel to and from countries which produce raw materials in excess of their domestic needs and consume manufactured goods which they are unable to make at home.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort on-the-Main, November 1, 1889.

BRITISH SHIP-BUILDING IN 1889.

REPORT BY CONSUL JONES, OF CARDIFF.

REVIEW OF BRITISH SHIP-BUILDING.

In a report on British ship-building during 1888, submitted to the Department just a year ago, I ventured to assert that the tonnage launched during 1889 would be far in excess of the output of 1888, if it did not even exceed that of the great ship-building year 1883. It was safe enough to predict that 1889 would show a larger output than the preceding year, for there were no less than 445 ships, measuring over 800,000 gross tons, in course of construction just a year ago. But, in speaking of the probable relative positions of 1883 and 1889, more caution was required, for the difference to be made up represented 350,000 tons of shipping. The forecast of a year ago has, however, been fully realized. The tonnage produced during the year 1889 shows an increase over the preceding year of 422,553 tons, and an excess over the year 1883 of 76,240 tons, the total output for last year being represented by 795 vessels, measuring 1,326,403 tons, the largest quantity of tonnage ever launched in a single year in the United Kingdom, which is equivalent to saying in any country in the world.

In 1881 the tonnage launched amounted to 1,000,000 tons; in 1883 the output was represented by 1,250,000 tons. That year marked the furthermost point of prosperity touched by the industrial pendulum. A period of depression set in with midsummer, 1883; orders fell off to an extraordinary extent, and the yards were kept busy during the remaining half-year and for a considerable portion of 1884 in completing the contracts previously made; but, notwithstanding all that, the vessels launched fell off about 40 per cent. in the single year 1884. The wave hollow was not reached, however, until 1886, when the total output of the yards represented only 480,000 tons, or only 38 per cent. of the output of 1883.

The year 1883 marked the highest point of prosperity, so far as prosperity can be gauged by the quantity of tonnage launched, while 1886, on the other hand, marked the lowest depth of depression, estimated by the corresponding factor; but, as the overproduction and seeming prosperity of 1883 contained the germ of depression, so also did the bad year 1886, with its small output of tonnage, contain the germ of prosperity. The improvement during the following year (1887) was inconsiderable, representing only about 97,000 tons of shipping. Meanwhile, however, since 1883, the price of raw materials, and especially of iron and coal, had fallen to the extent of 50 per cent.; the price of labor had also been substantially reduced, many ship-building yards were closed, and nearly all the rest were working short time and employing fewer hands than is represented by their capacity when in full work.

It is, perhaps, safe to assert that during the years 1885, 1886, and 1887 the displacement of the world's tonnage, through the sinking, stranding, and breaking up of ships, was as great as the quantity of new shipping produced during those years. Meanwhile, what may be termed the normal growth of the volume of the world's commerce continued to increase; fresh fields were inviting the enterprise of merchant and ship-owner, and at length the requirements of over-sea commerce overtook, and, indeed, exceeded, the available tonnage for transportation. Then followed the large cotton crop in the Southern States, the exceptionally rich harvests in India and Russia, together with stiffening freights and cheap money—all contributing towards the restoration of confidence and inspiration to enterprise; and with the year 1887, as has already been indicated, the signs of trade revival became apparent. During the following year (1888) prosperity was felt in all the industries of this country, and the output of the ship-building yards increased by over 80 per cent. compared with 1887, the aggregate for the year being 906,131 tons.

The history of the ship-building year 1889 is simply the record of the preceding year "writ large." No new principles or inventions have been adopted or applied. In all that appertains to the construction and propulsion of vessels, 1889 simply shows a continued development of materials and improvements in machinery, approved and adopted in part, at all events, during preceding years.

SIZE OF SHIPS.

The average size of vessels is increased year after year, that for 1889 being represented by a vessel measuring 1,881 tons, against an average in 1888 represented by a vessel measuring 1,716 tons. The advantages offered by large ships are at once obvious and numerous—combining increased carrying power with great corresponding economy in labor, fuel, and cost of production and repairs. This movement towards larger ships, which has been going on for years, will doubtless continue so long as larger ships can be made responsive to the master's command in respect of navigation.

A table is here inserted showing the average size of vessels built in the United Kingdom in 1888 and 1889:

District.	1889.	1888.
The Tyne	2,192	1,610
The Tees	2,154	2,117
The Wear	2,130	1,898
West Hartlepool	2,094	2,230
Whitby	1,878	1,900
Blyth	1,371	1,330
The Clyde	1,348	927
Total	13,167	12,012

SHIPS' PLATES.

In spite of complaints and criticisms on the score of corrosion, steel continues to advance in favor as a ship-building material, and it is even maintained by competent authorities that, by proper painting and cementing, what may be considered as a drawback in this material might be safeguarded. It is suggested that the very smooth surface which steel plates present renders the adhesion of protective paint less perfect than where iron plates are used; but surely the question of a rough or smooth surface is not beyond the wit and capacity of mechanics and metallurgists to deal with. The wisdom of using steel plates in conjunction with iron is also called in question. An authority upon this subject says that, "if every part of a ship were made of steel, and the surfaces were, at the beginning, made free from oxide of iron, and then carefully painted with a good adhesive protective paint, steel vessels would be found to last as long as iron ones, and would be more remunerative. Common iron is electro-negative to the excellent steel plates worked into the hulls and boilers of ships; therefore, the life of the iron bulkhead or knee or floor is preserved at the expense of steel plates with which it is in contact."

Metallurgists and ship-owners are continually at work endeavoring to improve the quality of steel and to overcome what is now considered a blemish in its composition; and one firm has recently put up a costly plant to make steel ingots from Cleveland pig by the open hearth basic process, and it is supposed that steel made from Cleveland iron will enjoy immunity from corrosion.

IRON AND STEEL SHIPS.

During the year 1888 ships built of iron amounted to about 12 per cent. of the whole output of tonnage for that year. The advance of steel into favor during the last year is shown by the fact that only 5½ per cent. of the whole tonnage launched represents iron ships, the actual figures being: Ships built of steel, 1,253,265 tons; ships built of iron, 72,975 tons.

Moreover, it is safe to assert that the percentage of iron plates used last year would have been much less were it not that builders, in some instances, were obliged to build with iron because steel could not be procured, owing to the great demand for plates of the superior metal.

EXPANSION ENGINES.

When dealing with the ship-building year 1887, I pointed out that during the year 1882 the compound engine was the type generally put into ships, and that only about a dozen vessels were supplied with the triple-expansion engines. But from that time the improved type of machine rapidly advanced in favor among builders and owners, so that about two hundred vessels were fitted up with triplex engines in 1886. What was true in respect of the triple-expansion engine in 1882 finds a parallel in the position of the quadruple engine in 1889. But while this new candidate has not gained admission into many ships during last year, the progress of the engine towards perfection has been continuous and satisfactory; and the triplex type will, in turn, be obliged to yield to the quadruple. The present working pressure of steam may be stated at 160 pounds to the inch, but it is being gradually but certainly increased, with satisfactory results upon the score of economy;

and ship owners and builders will find their advantage in encouraging the quadruple engine, "which, by decreasing the range of temperature in any one cylinder, gives an easy-working engine and adds to the safety of the machinery."

BOILERS.

Reforms and improvements are being introduced in the way of evaporators and fresh-water ballast tanks, which enable the engineer to keep the boilers free from lime and salt deposits and avoid the consequent overheating.

Forced draught makes but indifferent progress, and this is said to be owing to the somewhat qualified perfection of steel plates.

TWIN SCREWS.

The advantage of twin-screw propellers is being recognized, and the reform is adopted in many if not in most of the highest class of ships, such as the *Teutonic*, the *Majestic*, and the great passenger vessels built on the Clyde and the northeast coast for the over-sea passenger trade.

PETROLEUM STEAMERS AND ELECTRIC LAUNCHES.

Considerable development has taken place in the construction of tank steamers for carrying petroleum in bulk. And the silent and mysterious-looking electric launches and passenger boats to be seen on the Thames are suggestive of important developments in the utilization of this new motor.

SHIP-BUILDING DISTRICTS.

The tables which will be found following demonstrate the fact that the centers of the great ship-building industry are changing, both in respect of the quantity and the quality of tonnage produced. In years gone by the Thames and the Mersey took leading positions, but during recent years they have been gradually falling away, until at length the Thames has reached the vanishing point in our general abstract for last year; and the builders of the metropolitan river now direct their attention almost entirely to torpedo boats, electric launches, and the repairing of ships. It is true that the Mersey shows an increase of nearly 16,000 tons of shipping built during last year, compared with 1888, but the total output is represented by twelve ships, measuring something less than 35,000 tons, which is but a small percentage of the tonnage launched on this great commercial river in past years.

The Clyde continues to occupy the first position as a ship-building center, with 248 vessels, measuring 334,445 tons, launched last year, or about one-fourth of the entire output of the Kingdom. Seventy-five of these vessels were sailers, against only one sailing vessel built on the Tyne. This is a notable fact. A few years ago most of the higher class tonnage was built on the great Scottish river, the yards of the northeast coast being almost entirely occupied in the construction of cargo-carrying vessels. The old supremacy is still maintained by the Clyde, but not in any thing like the same degree; and some of the finest vessels launched into British waters last year were built on the Tyne, the Wear, and the Tees.

THE GREAT BRITISH SHIP-BUILDERS.

The great firm of Sir William Armstrong, Mitchell & Co. has become, perhaps, the greatest war-ship builders in the world. Their advantages in this respect are important and decided, for they not only build vessels and engines, but also take a leading, if not the foremost, position as makers of guns and hydraulic machinery. The firm of Messrs. Wigham, Richardson & Co. has for years taken a high position as builders of superior tonnage intended for the over-sea passenger trade. Messrs. Harland & Wolff, of Belfast, have again advanced upon the high position they have held as builders of passenger ships by turning out the *Teutonic* and the *Majestic* for the White Star line, as fine examples of merchant vessels as are to be seen on any sea. These vessels, with others constructed for the great passenger carriers, were built under admiralty supervision, and enjoy the advantages in the way of Government bounty which the extra cost and conditions of the contract carry with them. But, inasmuch as the question of bounties paid by foreign governments was made the subject of a separate report submitted to the Department a few weeks ago, it will not be further pursued here. The great firm of Messrs. Palmer & Co., of Jarrow, on the Tyne, has secured orders from the admiralty for the construction of three war-ships, the contract running for three years—a fact which indicates the confidence of the Government in Tyne ship-building. As already stated, the Clyde maintains the premiership, and these references to firms in Belfast and the northeast coast are simply intended to show that the Scottish river is being overhauled.

It will not, perhaps, be out of place, in a report emanating from the consul at Cardiff, to mention that ship-building has made some progress on the Taff during the last few years, and that a wealthy syndicate has made arrangements for extending this branch of industry to an important extent during the present year. One good-sized ship was launched into Cardiff waters during 1889, and there are three vessels, measuring on an average about 2,500 gross tons, now on the stocks.

An examination of the tables will show that the great Jarrow firm of Messrs. Palmer & Co. has again resumed the first position in respect of the quantity of tonnage launched last year, with a total output of 64,669 tons. Then follow Messrs. Gray, of Hartlepool, with nearly 59,000 tons; Messrs. Harland & Wolff, of Belfast, with over 56,000 tons; Messrs. Russell & Co., of the Clyde, with over 46,000 tons; and Sir Raylton Dixon, of Middlesbrough, with nearly 41,000 tons. The relative positions of the other builders may be ascertained from the tables submitted.

It must, indeed, be gratifying to the builders and owners of British tonnage that, notwithstanding the encouragement given by foreign governments to ship builders and owners, and in spite of the advantages which foreign tonnage certainly enjoys when loading even in British ports, vessels built last year for foreign and colonial account show an increase over the year 1888 amounting to 117,392 tons, the total output of such tonnage being 161 vessels, measuring 279,969 gross tons.

THE SHIPPING OUTLOOK.

The total output of the yards last year (1,326,240 tons) shows the largest quantity of tonnage ever launched in a single year. But it is tolerably safe to predict that the tonnage which will be turned out this year will be considerably in excess even of those extraordinary figures. It is estimated that there is now on order in British yards at least 1,000,000 tons of shipping; and while it is probable that not all this tonnage will be launched during 1890, the exception will only embrace a few of the very largest ships, and this discrepancy will be more than made up by the launching of tonnage that will be both ordered and built during this year; and it is not improbable that 1,500,000 tons will be added to the carrying power of the world from British yards during 1890. This year's output will probably mark the highest point that will be reached by the prosperous wave which is still advancing.

It is not believed—by the present writer, at all events—that a collapse such as was experienced in 1884, and showing a diminished production in that year compared with its predecessor of 500,000 tons of shipping, will be experienced in 1891. There are safeguarding elements influencing the industry now which were absent in 1883. First, the lesson taught by the depression following the year 1883 will not be lost upon investors in shipping property, and greater caution will be exercised as to the character and capacity of managing owners of ships to whom they will intrust their capital; second, the price of materials has advanced rapidly, especially since January 1, 1889, the total advance from that time to this in iron, steel, and coal being about 50 per cent. Moreover, the wages of labor have also been increased all round by about 25 per cent. Trade organizations have been very generally established in all branches of industry, and through the officers and organizations the movement in the prices of products is being carefully watched, and following every advance in iron, steel, coal, or shipping there is a corresponding demand for advanced wages. All these factors go to increase cost of production all round, and they impart into the industry steadying elements which deter ship-owners from buying at greatly advanced prices and speculative builders from executing orders from men of straw in the hope of making fabulous profits. But overproduction is sure to come, and a period of depression must necessarily follow. Whether this will set in with midsummer, 1891, or sooner or later, is uncertain; it can not long be postponed. And even now orders are being taken running over three years, based, in part, upon the prospective fall in the prices of materials and the wages of labor within the next two years. But that the depression will be so severe as during the period extending from midsummer, 1883, to 1886 is not believed by the writer of this paper.

Statement showing the number, tonnage, and class of vessels built in the United Kingdom during the years 1888 and 1889.

Name of firm.	Vessels.		Tonnage.	
	Steam.	Sail.	1889.	1888.
The Tyne:	*No.*	*No.*	*Tons.*	*Tons.*
Palmer's Ship-building Company	28	....	64,669	47,076
Sir W. G. Armstrong, Mitchell & Co	15	....	34,415	32,541
C. S. Swan & Hunter	12	....	28,312	18,320
John Redhead & Sons	12	....	26,182	23,045
R. W. Hawthorn, Leslie & Co	8	....	22,536	27,830
R. Stephenson & Co	7	....	20,517	10,173
Wigham, Richardson & Co	9	1	20,353	15,875
Tyne Iron Ship-building Company	8	....	15,547	12,211
Schlesinger, Davis & Co	9	....	13,029	5,296
W. Dobson & Co	8	....	12,501	9,046
Wood, Skinner & Co	7	....	8,892	5,326
T. and W. Smith	7	....	7,101	....
Edwards' Ship-building Company	6	....	6,000	4,894
James T. Eltringham & Co	8	....	945	891
Hepple & Co	5	....	536	431
The Tyne General Ferry Company	2	....	169	....
Northern Marine Engineering Company	1	....	4	70
Thomas Brown	....	....	....	150
J. P. & C. Winlow	....	....	....	30
Total	152	1	281,708	213,205
The Wear:				
J. L. Thompson & Sons	13	....	30,543	35,121
James Laing	10	1	29,160	16,969
William Doxford & Sons	10	....	24,150	14,038
Sunderland Ship-building Company	11	....	23,565	11,186
Short Bros	10	....	23,419	21,121
R. Thompson & Sons	8	....	18,170	8,668
John Blumer & Co	9	....	15,296	5,820
Bartram, Haswell & Co	5	....	11,917	7,180
Osbourne, Graham & Co	6	....	10,692	4,000
W. Pickersgill & Sons	3	2	7,950	6,846
Priestman & Co	6	....	8,037	1,992
The Strand Slipway Company	4	....	7,482	2,158
S. P. Austin & Co	3	1	6,951	7,311
Total	98	4	217,332	142,410
West Hartlepool:				
W. Gray & Co	28	....	58,731	50,307
E. Witby & Co	9	....	21,015	20,087
Irvine & Co	4	....	6,129	1,755
Total	41	....	85,875	72,149
Whitby:				
Turnbull & Son	7	....	13,146	13,267
The Tees:				
Raylton Dixon & Co	18	....	40,689	27,295
Ropner & Sons	12	....	29,441	2,945
Richardson, Duck & Co	8	2	21,585	18,669
Craig, Taylor & Co	5	....	10,450	6,519
R. Craggs & Sons	5	....	5,561	1,743
Total	48	2	107,726	57,171

Statement showing the number, tonnage, and class of vessels built in the United Kingdom during the years 1888 and 1889—Continued.

Name of firm.	Vessels.		Tonnage.	
	Steam.	Sail.	1889.	1888.
	No.	*No.*	*Tons.*	*Tons.*
Blyth:				
Blyth Ship-building Company	8	......	10,889	6,851
Union Co-operative Ship-building Company	2	......	83	......
Total	10	......	10,972	6,851
The Clyde:				
Russell & Co	7	14	46,500	45,495
William Denny & Bros	20	......	25,230	30,143
Fairfield Ship-building Company	8	......	23,830	15,299
Scott & Co	11	1	20,630	7,179
A. Stephen & Son	6	2	18,430	16,975
Caird & Co	7	......	16,461	9,944
Charles Connell & Co	3	5	15,020	13,803
Barclay, Curlie & Co	1	5	12,760	9,340
J. Reid & Co	4	2	12,754	5,200
J. and G. Thomson	3	......	12,316	21,000
D. and William Henderson & Co	5	12	11,806	14,475
R. Napier & Sons	3	......	11,640	7,047
Robert Duncan & Co	3	4	11,257	6,790
A. McMillan & Son	4	3	10,344	7,737
London and Glasgow Engineering Company	3	......	8,660	10,045
A. and J. Inglis	3	......	8,304	11,855
Aitken & Mansel	3	......	8,140	5,682
Lobnitz & Co	8	......	6,507	4,364
David J. Dunlap & Co	3	2	5,700	1,500
William Hamilton & Co	1	2	5,312	4,562
Murdoch & Murray	3	......	5,269	5,295
Napier, Shanks & Bell	3	1	5,166	4,720
S McKnight & Co	5	......	4,558	1,806
Campbeltown Ship-building Company	3	......	4,484	1,508
Ailsa Company	7	......	3,771	2,870
Fleming & Ferguson	5	......	3,620	2,980
W. Simons & Co	7	3	3,375	3,110
Mackie & Thompson	5	......	2,215	......
Birrell, Stenhouse & Co.	......	1	2,160	1,906
Scott & Co. (Bowling)	5	......	2,054	744
Alley & McLellan	......	......	1,517	2,228
John Fullerton & Co	4	......	965	1,071
Blackwood & Gordon	2	......	800	......
McArthur & Co	5	......	752	1,629
Mechan & Sons	......	......	675	236
T. B. Seath & Co	3	4	527	390
D. McGill & Co	3	......	326	165
Marshall & Co	2	......	140	......
William Swan & Co	......	......	140	53
William Fyfe & Sons	......	12	91	82
Hanna, Donald & Wilson	1	......	86	83
Ardrossan Ship-building Company	1	1	38	511
D. M. Cumming	3	......	34	225
J. and J. Hay	......	1	90	......
Total	173	75	334,454	280,056
Belfast:				
Harland and Wolff	12	......	56,430	21,112
Workman, Clark & Co	6	1	17,710	12,277
McIlwaine, Lewis & Co	6	2	5,713	2,108
Total	24	3	79,853	35,497

Statement showing the number, tonnage, and class of vessels built in the United Kingdom during the years 1888 and 1889—Continued.

Name of firm.	Vessels.		Tonnage.	
	Steam.	Sail.	1889.	1888.
Middlesbrough:	*No.*	*No.*	*Tons.*	*Tons.*
Raylton, Dixon & Co	18	...	40,689	...
Harkess & Co	3	...	2,700	...
Total	21	...	43,389	...
Cardiff:				
Bute Ship-building and Engineering Company	1	...	2,750	...
The Mersey:				
Laird Brothers	6	...	13,478	4,187
Thomas Royden & Sons	2	1	9,234	9,832
W. H. Potter & Sons	...	6	7,698	3,801
R. and J. Evans & Co	...	2	3,406	1,237
John Jones & Co	4	...	949	...
Total	12	9	34,765	19,057
Barrow-in-Furness:				
Naval Construction and Armament Company (limited)	10	...	26,847	...
The Humber:				
Earle's Ship-building and Engineering Company	17	...	18,455	5,610
Cook, Welton & Gemmell	12	...	1,723	...
Cochrane, Cooper & Schofield	9	...	1,350	...
Smith & Stephenson	...	3	184	260
Total	38	3	21,712	5,870
Grangemouth:				
Grangemouth Ship-building Company	12	2	14,047	4,556
Whitehaven:				
Whitehaven Ship-building Company	2	3	10,041	...
Dundee:				
W. R. Thompson	6	...	8,470	4,190
Alexanders, Stephen & Co	2	...	1,508	...
Gourlay Bros. & Sons	...	...	...	4,400
A. Stephens & Sons	...	...	...	1,992
Pearce Brothers	...	...	...	525
Total	8	...	9,978	11,107
Aberdeen:				
Hall, Russell & Co	5	...	5,770	4,570
A. Hall & Co	4	1	3,320	1,270
J. Duthie & Sons	...	...	...	800
Total	9	1	9,090	6,640
Leith:				
S. and H. Morton	5	...	3,660	...
J. McKenzie & Co	2	...	82	...
Ramage & Ferguson	...	...	...	6,053
Total	7	...	3,742	6,053
Workington:				
R. Williams & Son	1	2	4,703	3,892
Milford-Haven:				
T. R. Oswald & Co. (limited)	2	...	1,402	...
Bristol:				
Newall & Co	1	...	410	240
Rye:				
G. and T. Smith	...	4	302	300

Statement showing the number, tonnage, and class of vessels built in the United Kingdom during the years 1888 and 1889—Continued.

Name of firm.	Vessels.		Tonnage.	
	Steam.	Sail.	1889.	1888.
	No.	*No.*	*Tons.*	*Tons.*
Preston:				
P. W. Allsup & Sons	2	....	250	126
Yarmouth:				
H. Fellowes & Sons	....	1	154	152
Ipswich:				
W. Bayley & Sons	....	1	79	88
Londonderry:				
Charles J. Bigger	1	4	7,268	....

Statement showing the number and tonnage of vessels built of iron.

Name of firm.	Vessels.	Tonnage.
The Tees:		
Richardson, Duck & Co	5	10,762
Craig, Taylor & Co	5	10,450
Raylton, Dixon & Co	2	4,335
Craggs & Son	2	1,245
W. Harkess & Son	1	1,000
Total	15	27,792
The Clyde:		
Simons & Co	8	2,275
Arch. McMillan	1	1,894
Fleming & Ferguson	1	600
Mackie & Son	4	592
Scott & Co	1	544
Total	15	5,905
The Wear:		
John Blumer & Co	1	1,470
James Laing	1	1,273
Short Bros	1	1,264
Robert Thompson & Son	1	1,200
John Pickersgill	1	1,059
Total	5	6,266
The Tyne:		
Thomas and W. Smith	2	2,309
Wood, Skinner & Co	1	1,129
J. T. Eltringham & Co	5	552
Hepple & Co	5	536
Edwards' Ship-building Company	3	450
Schlesinger, Davis & Co	1	243
Total	17	5,219
Blyth:		
Blyth Ship-building Company	3	2,926
Dundee:		
W. B. Thompson	2	1,914
Whitehaven:		
Whitehaven Ship-building Company	2	1,744
Milford-Haven:		
T. R. Oswald & Co	1	152

Statement showing the number and tonnage of vessels built of iron—Continued.

Name of firm.	Vessels.	Tonnage.
Aberdeen:		
A. Hall & Co	1	142
The Humber:		
Earle's Ship-building Company	11	8,224
Cook, Welton & Gemmell	12	1,723
Cochrane, Cooper & Schofield	9	1,350
Total	32	11,297
The Mersey:		
E. and J. Evans & Co	2	3,406
W. P. Potter & Sons	5	5,845
John Jones & Co	2	362
Total	9	9,613
Summary of iron ships:		
The Tees	15	27,792
The Humber	32	11,297
The Mersey	9	9,613
The Clyde	15	5,905
The Wear	5	6,266
The Tyne	17	5,219
Blyth	3	2,926
Dundee	2	1,919
Whitehaven	2	1,744
Milford Haven	1	152
Aberdeen	1	142
Total	102	72,975

Statement showing the number and tonnage of vessels built for foreign account.

Name of firm.	Vessels.	Tonnage.
The Tyne:		
Palmer's Ship-building Company	3	7,444
Armstrong, Mitchell & Co	7	19,175
Wigham, Richardson & Co	6	9,250
R. and W. Hawthorn, Leslie & Co	3	7,490
C. S. Swan & Hunter	3	7,420
Wood, Skinner & Co	5	7,039
Thomas and William Smith	3	2,620
Tyne Iron Ship-building Company	2	2,108
J. Readhead & Son	1	1,965
Edwards' Ship-building Company	1	1,700
W. Dobson & Co	1	1,530
Schlesinger, Davis & Co	2	603
J. T. Eltringham & Co	1	170
Total	38	68,514
Total for 1888	....	60,470
Increase	....	8,044
The Wear:		
Sunderland Ship-building Company	9	21,124
James Laing	2	5,954
John Blumer & Co	3	5,403
W. Doxford & Sons	2	4,800
W. Pickersgill & Sons	2	3,661
L. P. Austin & Sons	2	3,489
Robert Thompson & Sons	1	2,406

Statement showing the number and tonnage of vessels built for foreign account—Continued.

Name of firm.	Vessels.	Tonnage.
The Wear—Continued.		
Osbourne, Graham & Co	2	2,205
Strand Slipway Company	1	2,158
Joseph L. Thompson & Sons	1	2,071
Short Bros	1	1,264
J. Priestman & Co	1	1,197
Total	27	55,732
Total for 1888		24,125
Increase		31,607
The Tees:		
Raylton, Dixon & Co	2	2,795
Richardson, Duck & Co	1	2,979
W. Harkess & Son	2	1,400
Craggs & Sons	1	613
Total	6	7,787
Total for 1888		4,391
Increase		3,396
West Hartlepool:		
W. Gray & Co	6	11,647
Total for 1888		4,437
Increase		7,210
Blyth:		
Blyth Ship-building Company	2	2,366
Total for 1888		1,193
Increase		1,173
The Clyde:		
Russell & Co	4	12,365
J. and G. Thompson	3	11,566
Connell & Co	4	7,733
A. Stephen & Son	3	7,074
Lobnitz & Co	7	6,429
W. Denny Bros	2	4,627
J. Reid & Co	2	4,613
Arch. McMillan & Son	3	3,829
D. and W. Henderson	2	3,584
Barclay, Curlie & Co	1	3,162
Fleming & Ferguson	3	2,500
Simons & Co	7	2,125
A. McMillan	2	1,935
Napier, Shanks & Co	2	1,833
Alley & McLellan		1,464
Campbeltown Ship-building Company	1	867
McArthur & Co	3	380
Seath & Co	2	180
Hanna, Donald & Co	1	86
D. M. Cumming & Co	2	20
Other firms	15	38,900
Total	69	115,272
Total for 1888		58,901
Increase		56,371
Grangemouth:		
Grangemouth Dock-yard Company	7	4,397
Total for 1888		1,216
Increase		3,181

Statement showing the number and tonnage of vessels built for foreign account—Continued.

Name of firm.	Vessels.	Tonnage.
Belfast:		
Workman, Clark & Co.	1	1,202
McIlwaine & Co.	1	1,946
Total	2	3,148
Leith:		
S. and H. Morton	2	1,830
Total for 1888		1,252
Increase		578
Milford-Haven:		
T. B. Oswald & Co.	2	1,402
The Humber:		
Earle's Ship-building Company	4	7,874
Summary of ships built for foreign account:		
The Clyde	69	115,272
The Tyne	38	68,514
The Wear	27	55,732
West Hartlepool	6	11,647
The Humber		7,874
The Tees	6	7,787
Grangemouth	7	4,397
Belfast	2	3,148
Blyth	2	2,366
Leith	2	1,830
Milford-Haven	2	1,402
Total	161	279,969
Total for 1888		162,577
Increase		117,392

General abstract of vessels built in 1889.

Ports.	Vessels.	Tonnage.
The Clyde	248	334,454
The Tyne	153	281,708
The Wear	102	217,332
The Tees	50	107,726
West Hartlepool	41	85,875
Belfast	27	79,853
Middlesbrough	21	43,389
The Mersey	21	34,765
Barrow-in-Furness	10	26,847
The Humber	41	21,712
Grangemouth	14	14,047
Whitby	7	13,146
Blyth	10	10,972
Whitehaven	5	10,041
Dundee	8	9,978
Aberdeen	10	9,090
Workington	3	4,703
Leith	7	3,742
Cardiff	1	2,750
Milford-Haven	2	1,402
Bristol	1	410
Rye	4	302
Preston	2	250

General abstract of vessels built in 1889—Continued.

Name of firm.	Vessels.	Tonnage.
Yarmouth	1	154
Ipswich	1	79
Londonderry	5	7,268
Other ports		4,245
Total	795	1,326,240
Total in 1888		903,687
Increase		422,553

EVAN R. JONES,
Consul.

UNITED STATES CONSULATE,
Cardiff, January 9, 1890.

Mexican coffee exports.—Minister Ryan, under date of January 24, 1890, transmits the following authentic statement, taken from the Mexican Financial Review of the 17th instant, of the value of the total exports of Mexican coffee in each year during the last twelve years, showing an increase from $1,242,041 in 1878 to $3,886,036 in 1889, a gain in that period of a little over 200 per cent.:

Year.	Value.	Year.	Value.
1877-'78	$1,242,041	1883-'84	$1,579,020
1878-'79	2,230,097	1884-'85	1,201,673
1879-'80	1,984,472	1885-'86	1,699,723
1880-'81	2,243,782	1886-'87	2,627,477
1881-'82	2,414,538	1887-'88	2,431,024
1882-'83	1,717,190	1888-'89	3,886,036

CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 115.—APRIL, 1890.

THE LABOR QUESTION IN GERMANY.

REPORT BY CONSUL-GENERAL EDWARDS, OF BERLIN.

The clipping herewith inclosed is from the London Times of February 14, 1890, and may be accepted as a fair translation of the address delivered by the German Emperor on the labor question at the first meeting of the council of state, in the Schloss, at Berlin, on the 14th instant.

The labor legislation suggested in this address will have a special interest for the working people of the United States, as it will mark a new departure in the labor legislation of Europe.

W. H. EDWARDS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, February 16, 1890.

EMPEROR WILLIAM'S ADDRESS.

[Inclosure in Consul-General Edwards's report.]

Gentlemen of the Council of State:

By my decree of the 4th instant you were informed that it is my desire to hear the views of the council of state regarding those measures which are necessary for the better regulation of the condition of the working classes. The important position which the council of state occupies in the Monarchy requires that the weighty questions to be solved in this connection should be submitted to it for thorough consideration before the bills to be drafted on the subject are laid before the parliamentary bodies, with whom rests, in virtue of the constitution, the final decision in the matter. I regard it as important that the council, composed as it is of members belonging to the most varied callings, in virtue of the practical experience represented by its members, should conscientiously and impartially examine my proposals and decide as to their expediency, practicability, and scope. The task for the accomplishment of which I have called you together is a serious and responsible one. The protection to be accorded to the working classes against an arbitrary and limitless exploitation of their capacity to work; the extent of the employment of children, which should be restricted from regard for the dictates of humanity and the laws of natural development; the consideration of the position of women in the household of workmen, so important for domestic life from the point of view of morality and thrift; and other matters affecting the working classes connected therewith—are susceptible of a better regulation. In the consideration of these questions it will be necessary to examine, with circumspection and the aid of practical knowledge, to what point German industry will be able to bear the additional burden imposed upon the cost of production by the stricter regulations in favor of the workmen, without the remunerative employment of the latter being prejudiced by competition in the world's market. This, instead of bringing about the improvement desired by me, would lead to a deterioration of the economic position of the workman. To avert this danger, a great measure of wise reflection is needed, because the satisfactory settlement of these all-absorbing questions of our time is all the more important since such a settlement and the international understanding proposed by me on these matters must clearly react one upon the other.

No less important for assuring peaceful relations between masters and men are the forms in which the workmen are to be offered the guaranty that, through representatives enjoying their confidence, they shall be able to take part in the regulation of their common work, and thus be put in a position to protect their interests by negotiation with their employers. The endeavor has to be made to place the representatives of the men in communication with the mining officials and superintendents of the State, and by that means to create forms and arrangements which will enable the men to give free and peaceful expression to their wishes and interests, and will give the State authorities the opportunity of making themselves thoroughly informed of the circumstances of the workmen by continually hearing the opinions of those immediately concerned and of keeping in touch with them. Then, too, the further development of the State-directed industries in the direction of making them pattern examples of effective solicitude for the workmen demands the closest technical study. I rely upon the tried loyalty and devotion of the State council in the labors which now lie before it. I do not lose sight of the fact that all the desired improvements in this domain can not be attained by State measures alone. The labors of love, of church, and school have also a wide field for fruitful action, by which the ordinances of the law must be supported and aided; but if, with God's help, you succeed in satisfying the just interests of the laboring population by the proposals you make, your work may be sure of my kingly thanks and of the gratitude of the nation.

The bills which are to be submitted for your consideration will be laid before you without delay. I appoint to take part in the deliberations the two sections of the council for commerce and trade, public works, railways, and mines, and for affairs of internal administration, and I will attach to them a number of experts. I request the members of those departments to assemble, in the place to be indicated to you, on the 26th instant, at 11 in the morning. As reporter I appoint Chief Burgomaster von Miguel, and as assistant reporter Privy Councillor Jencke. I reserve to myself the power, after the conclusion of the sectional discussions, to order the council of state to re-assemble; and I wish you in your work the blessings from on high, without which human acts can never prosper.

WAGES IN THE UNITED KINGDOM.

REPORT BY CONSUL BROWN, OF GLASGOW.

Wages in the United Kingdom have been under consideration of the national board of trade for some time past, and the first installment of their report is just published. The summary is of such a character, condensing, as it does, in a few words the prices paid labor in the textile manufactories of the Kingdom, that, at the risk of duplicating what some other consul may send you, I herewith inclose the summary of said report, the same being a clipping from one of the daily papers of yesterday.

Condensing from the summary herewith, and reducing to United States currency, I find wages paid in cotton manufacturing, the largest of the textile industries, and counting the full number of working-days in the year, without making allowance for holidays, sickness, etc., and which, report says, reduce the sums total 10 to 13 per cent., is as follows, in round numbers, as to annual amount paid:

COTTON.

Operatives.	Annual.	Per week.
Men	$319.00	$6.13
Lads and boys	118.00	2.27
Women	194.00	3.71
Girls	87.00	.97

WOOLEN.

Men	292.00	5.63
Lads and boys	107.00	2.06
Women	167.00	3.22
Girls	94.00	1.80

WORSTED.

Men	294.00	5.67
Lads and boys	82.00	1.58
Women	151.00	2.89
Girls	77.00	2.81

LINEN.

Men	251.00	4.80
Lads and boys	79.00	1.52
Women	112.00	2.16
Girls	62.00	1.19

L. W. BROWN,
Consul.

UNITED STATES CONSULATE,
Glasgow, February 18, 1890.

[Inclosure in Consul Brown's report.]

A census of wages can only be looked upon as second in importance to a census of population. The commercial department of the board of trade have been engaged on a compilation of this nature for the last few years, but the labor involved is so great that it has not been found possible to present the first installment of the results until now. In some of their aspects, no doubt, figures relating to 1885 and 1886 must be considered as partaking of the character of ancient history. In other respects, however, they possess an importance which can scarcely be exaggerated. Very little benefit, as Mr. Giffen points out in his report, has been gained in the past from returns of wages, which have neither had an adequate statistical basis nor have been prepared in accordance with proper statistical methods. What has been aimed at in the present scheme is the preparation of labor statistics that will be beyond dispute, the information being accurately obtained, and the foundation securely laid for future comparisons. This is a task which, for obvious reasons, can not be proceeded with in a hurry. It involves the preparation of schedules of an elaborate nature, and, even after these have been filled up and returned, their manipulation and analysis call for the expenditure of a great deal of time as well as of skill. The report just sent out by the department refers exclusively to the textile trades of the United Kingdom. In all, five thousand one hundred and forty-two schedules were sent to employers connected with these industries, the following figures showing the manner of their distribution and return:

Trades.	Schedules.	
	Issued.	Returned.
Cotton	2,080	542
Woolen	1,807	291
Worsted	452	121
Linen	803	149

In order to prove that a considerable portion of the population engaged in the textile trades is practically dealt with in the schedules returned, the following comparison becomes instructive:

Trades.	Total employed.	Numbers returned.
Cotton	504,000	143,000
Woolen	139,000	37,000
Worsted	138,000	36,500
Linen	112,000	40,000

It will thus be seen that the proportion returned to the total employed is 28 per cent. in the case of the cotton industry, 26 per cent. in the woolen, 26½ per cent. in the worsted, and 36 per cent. in the linen. In other words, more than a fourth of the factory population in the trades concerned are included in the returns analyzed by Mr. Giffen. Before considering the results arrived at, it may be as well to explain that the schedules sent out asked for information in two different ways. The first portion of the schedule called for a return of the weekly rates of wages actually earned in a particular week in October, 1886, together with the number who earned them, classified according to occupation, and distinguishing men, lads, women, and girls. By multiplying the averages thus obtained by fifty-two the intention was to build up a general scheme of the actual earnings for a year. Lest such a test, however, should not prove a correct one, the second part of the schedule asked for a return of the whole amount of wages paid during the previous calendar year, so that, by dividing the total by the estimated number of work people, the average rate of wages might be reached in a different method.

Mr. Giffen states that the two results tend to confirm each other in a remarkable manner. Taking the cotton trade first as the greatest of all the textile industries, it is found that the total amount paid in wages during 1885 by the firms whose schedules are returned amounted to £5,152,846, which, when multiplied by the number of 142,734 employed, shows an aggregate earning per head of £36. Compared with this we have the fact that the wages paid in the given week of 1886, multiplied by fifty-two, would amount approximately to £5,624,000, or £39 8*s*. per head per annum. From the larger figure, however, must be deducted about

10 per cent. for sickness, out of work, holidays, and the like causes, and when this is done the results seem to become approximately corroborative. Bearing in mind the qualifications to which reference has been made, the earnings in the cotton trade may be stated thus:

Operatives.	Annual.	Per week.
	£ s.	£ s. d.
Men	65 12	1 5 3
Lads and boys	24 4	0 9 4
Women	39 15	0 15 3
Girls	17 17	0 6 10
Average	39 8	

NOTE.—£1=4.86\frac{6}{10}$; 1 shilling=24 cents; 1 penny=2 cents; 12 pence=1 shilling; 20 shillings=£1.

Analyzing in the same way the schedules obtained from the woolen trade, it appears that the average annual earning is £35 per head, a very little less than the average earning already brought out in connection with the cotton industry. The numbers are 36,734 and the whole amount paid in wages during 1885, £1,295,132. By the second method—that of multiplying by fifty-two the average weekly earnings according to the return for the normal week of October, 1886—we find that the annual earnings would come to £1,484,548, or £40 8*s*. per head. The difference here reaches close on 13 per cent., as compared with a similar difference of about 10 per cent. in the case of cotton, showing apparently that 1885 was, in proportion, a worse year for woolen than for cotton. On the whole, however, the facts are very much alike, and indicate clearly enough, as Mr. Giffen is at pains to contend, that it would not be fair merely to multiply the wages of a normal week by fifty-two to arrive at a year's earnings, but that allowance must be made for sickness and other causes of interruption of work. The general rates, then, for the woolen trade are:

Operatives.	Annual.	Per week.
	£ s.	£ s. d.
Men	60 0	1 3 2
Lads and boys	22 0	0 8 6
Women	34 9	0 13 3
Girls	19 7	0 7 5
Average	40 8	

In the worsted trade the amount paid in wages during 1885 was £1,022,514, giving an average per head of £28, while the average reached by the second plan is, it will be seen, £31 12*s*.—

Operatives.	Annual.	Per week.
	£ s.	£ s. d.
Men	60 13	1 3 4
Lads and boys	16 18	0 6 6
Women	31 0	0 11 11
Girls	16 0	0 6 2
Average	31 12	

The linen manufacture presents some points of contrast with those of the trades already dealt with, the districts being different and the average rate of wages distinctly lower. During 1885 the total amount paid in wages was £977,114, which gives an average earning per head of £25. The average obtained in the other way is £25 10*s*.—only 4 per cent. of difference, as compared with from 10 to 13 per cent. in the cotton and other trades. When classified, the results are—

Operatives.	Annual.	Per week.
	£ s.	s. d.
Men	51 13	19 9
Lads and boys	16 4	6 3
Women	23 3	8 11
Girls	12 17	4 11
Average	25 10	....

Looking at the results as a whole, the following table brings out the differences in the average wages earned by operatives connected with the various branches of the great textile industries:

Operatives.	Annual.				Weekly.			
	Cotton.	Woolen.	Worsted.	Linen.	Cotton.	Woolen.	Worsted.	Linen.
	£ s.	£ s.	£ s.	£ s.	s. d.	s. d.	s. d.	s. d.
Men	65 12	60 0	60 13	51 13	25 3	23 2	23 4	19 9
Lads and boys	24 4	22 0	16 18	16 4	9 4	8 6	6 6	6 3
Women	39 15	34 9	31 0	23 3	15 3	13 3	11 11	8 11
Girls	17 17	19 7	16 0	12 17	6 10	7 5	6 2	4 11

Mr. Giffen attributes these differences, such as they are, very much to the geographical distribution of the trades, his point being that wages rule highest in the great centers of the industry and lowest in the outlying districts. This is doubtless correct enough, but the facts will be more clearly ascertained as the statistics connected with other trades are collected and published. A large number of schedules dealing with varying industries still remain to be "digested," and, as they are dealt with after the plan already described, the limits within which the true average of wages must lie will become narrowed. The progress of the work will be watched with interest, not merely for the immediate results it is likely to disclose, but for the promise it carries with it of forming a foundation on which comparisons of a far-reaching nature may be built up.

COAL MINERS' WAGES IN GERMANY.

REPORT BY CONSUL WAMER, OF COLOGNE.

Referring to my report on the coal miners' strike in Germany, dated May 25, 1889, in which the earnings of the miners were given, I am now enabled to furnish from the official statistics the earnings of this class of wage-workers in the principal mines in Germany during the three quarters of the current year, which are interesting as showing the average net earnings of the first two quarters preceding the strike and those of the first quarter following it.

It will be remembered that the strike originated first in the Westphalian coal mines, which was for higher wages and a reduction in the hours of labor per shift, both of which were finally granted by the masters. Latterly there has been some dispute between the miners and the masters in the Westphalian mines, and which almost culminated in another strike, with regard to the re-employment of the more violent leaders who took part in the strike of last

May, and whom the masters had refused to take back. In consequence of this action on the part of the masters, the miners have been very persistent in their threats of another strike; but on the advice of the Government the masters have at last consented to take back these workmen, provided that the men would discontinue their agitation, and thus a very serious interruption in the coal mines has so far been avoided. The annexed table shows the wages earned by the miners in the principal coal mines of Germany during each of the three quarters of the year ending September 30, 1889:

Mining district.	Number of workmen.	Number of shifts worked.		Net wages earned.*	
		Total.	Per workman.	Total.	Per shift.
Upper mining district of Breslau:					
Upper Silesia —					
First quarter	42,845	3,008,066	70	†$1,316,420	$0.43 80/100
Second quarter	41,106	2,734,674	67	1,290,933	.47 12/100
Third quarter	42,597	3,164,921	74	1,606,454	.50 76/100
Lower Silesia —					
First quarter	14,503	1,119,687	77	552,540	.49 38/100
Second quarter	14,001	984,168	70	504,922	.51 40/100
Third quarter	14,097	1,127,344	80	619,655	.55
Upper mining district of Dortmund:					
First quarter	110,964	8,795,246	79	5,826,513	.66 18/100
Second quarter	108,852	7,353,101	68	5,181,585	.69 44/100
Third quarter	110,791	9,026,102	81	6,812,355	.75 44/100
Saarbrücken —					
First quarter	25,219	1,806,133	72	1,252,477	.69 35/100
Second quarter	25,362	1,687,212	67	1,256,017	.74 80/100
Third quarter	25,677	1,982,650	77	1,608,428	.81 15/100
Aachen —					
First quarter	7,030	526,569	75	323,491	.61 40/100
Second quarter	6,702	464,826	69	294,670	.63 30/100
Third quarter	6,716	529,995	79	351,911	.66 40/100

* Exclusive of all costs to the workmen, as well as their contributions to the working-men's union and sick fund.

† Reckoned from the German mark at the rate of 23.8 cents to the mark.

The average hours of work per shift, including the pit descent and ascent, in Upper Silesia is twelve; in Lower Silesia, ten; in Dortmund, nine; and in Saarbrücken, ten. The Saarbrücken mines are worked by the State, and the difference in the wages is to be attributed to longer work per shift.

The average net wages earned per shift in the principal coal mines of Germany during the past three years, as compared with the third quarter of 1889, are as follows:

Districts.	1886.	1887.	1888.	1889.*
Upper Silesia	$0.43	$0.43 3/10	$0.44	$0.50 76/100
Lower Silesia	.47 3/10	.50 3/10	.48 1/3	.55
Dortmund	.61 4/10	.61	.64	.75 44/100
Saarbrücken	.67 8/10	.68	.69 1/3	.81 15/100

* Third quarter.

The total amount contributed by each miner to the sick and general fund averages about $8.50 per annum.

In view of the great increase in the price of coal (from 50 to 100 per cent.) that has taken place since the second half of the current year, there appears to be still more or less dissatisfaction among the men, and it is not at all unlikely that they will soon be coming out with their demands for another increase in their wages. Hence there is at present no little uneasiness felt for fear that another strike may not be avoided. When, however, one takes into consideration the wages earned by other classes of workmen in Germany, such, for instance, as railroad workers, who earn about 60 cents a day of from eleven to twelve hours' work, it can not be said that the miners at present are, comparatively, badly paid. The Government was very liberal with its sympathy on the side of the workmen during the last strike, and it has since been untiring in its efforts to bring about just conciliations between the men and masters. In viewing, on the other hand, the financial results of the most important mines in Westphalia during a series of back years, they are found to have turned out not at all favorable, as will be seen from the estimates arrived at by a committee appointed in 1887 by the united mining stock companies to examine into the financial operations of twenty-three companies. The examination of said committee embraced the period from 1876 to 1885, inclusive, or ten years. The capital invested amounted to $36,493,741, and the dividend paid during the ten years amounted to $8,172,530, or 2.67 per cent. Only in one hundred and seventeen cases did the balances show a profit, while in one hundred and thirteen cases they showed a loss. Of the twenty-three companies only five paid a dividend regularly during the ten years. The capital of these five companies was $12,923,400, and they had distributed dividends to the amount of $7,184,744 during the ten years, or an average of 5½ per cent. per annum. The remaining eighteen companies, with a capital of $23,570,040, paid only $2,361,784, or about 1 per cent., dividends. It is stated that if the amount of the liabilities had been taken into consideration, as well as the sums that should have been written off, then the whole of these twenty-three companies would have shown no gain at all.

WM. D. WAMER,
Consul.

UNITED STATES CONSULATE,
Cologne, December 14, 1889.

COAL MINERS' STRIKE AT CHARLEROI.

REPORT BY CONSUL ROOSEVELT, OF BRUSSELS.

The strike, which, during the past three days, assumed a menacing attitude, was yesterday brought to a peaceable close. Some time ago an offer was made on behalf of the miners to resume work on condition that the hours of labor be reduced from eleven to ten, instead of to nine hours, as at first demanded, the question of wages being left to the equity of the directors. Hitherto the miners have behaved themselves in the most orderly manner, for which they deserve great credit, considering the inducement there is for unemployed men to go about the country in large parties proclaiming their grievances. The greatest inconvenience has been felt in the manufacturing districts, owing to the impossibility of getting the mining companies to fulfill their contracts. Many of the works have shut down and thrown a number of hands out of employment. On the part of the directors, it is stated that their refusal to reduce the hours of work was as much in the interest of the men as in their own; for, by doing so, they would be unable to compete with the German mines, which, having the coal nearer the surface, are able to obtain it much cheaper, and, consequently, in ordinary times, would be able to supply even the neighborhood of Charleroi, thus compelling most of the mines to stop work. Another reason was, that if they consented to a reduction of one hour, should it prove ruinous to them, they could not withdraw the concession once made; and they had, moreover, reason to expect that before long the men would strike for their original demand of two hours, such having been the case at Monceau-Fontaine, where the reduction of one hour was agreed to as a trial, and on condition that the amount of coal extracted was not reduced, and now the men have struck for the two hours.

The directors have, however, agreed to the following conditions: Working hours reduced from twelve to eleven and from eleven to ten hours per day, and an increase of 10 per cent on wages, with given assurance that they will continue to increase the wages as the selling price of coal advances.

Nineteen thousand eight hundred and thirty miners were on strike at Charleroi; at Nivelles, Liege, and Borinage, not more than two thousand. The miners have agreed to resume work under the above conditions not later than the 16th instant.*

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Brussels, January 15, 1890.

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*Under date of January 22, 1890, Consul Roosevelt reports that the coal miners at Charleroi are again on strike, brought about, as claimed by the miners, by bad faith on the part of the masters. The miners were informed upon resumption of work that the hour reduction recently accorded them, instead of being deducted as a whole, either in the morning or evening, was to be divided into a half-hour in the morning and a half-hour at night. This gave umbrage to the miners, who immediately struck, demanding two hours reduction per day and an increase of 15 per cent. on wages. The strikers have held meetings, at which they promised to preserve their *sang-froid* and remain calm, but not to return to work until they obtained their rights. Orders have been transmitted to superintendents of railroads to be prepared for the immediate transportation of troops. The scarcity of coal and the renewal of the strike creates serious apprehensions. Great anxiety prevails among the poorer classes, who are unable to buy coal at the present exorbitant prices. There is every prospect of a coal famine if a speedy solution of the difficulties now existing between masters and men is not arrived at, not only in Belgium, but also in France, which yearly imports 6,000,000 tons of coal from Belgium.

INDIAN CORN FOR SPAIN.

REPORT BY CONSUL TURNER, OF CADIZ.

I have the honor to state that Mr. A. J. Bensusan, an extensive shipper of this city, informs me that he is daily expecting from Buenos Ayres the arrival of a vessel loaded with Indian corn.

The cargo has been sold for $3 per 100 kilograms. It is to be used principally for feeding stock. Here, so far as I am able to learn, Indian corn is not used for food. The corn raised here, as well as that which is imported, is fed to animals or used for distilling. Sweet canned corn, corn bread, mush, etc., are not known.

The great question with the working classes is, how to get bread. This question would be less difficult of solution were the food uses of Indian corn as well understood here as in the United States. Corn bread, canned corn, etc., would be great gifts to the workers of Europe, and it would seem that an understanding of their value might be brought about wherever bread is hard to get. Being wholesome and cheap, corn should win its way. As shown by the market reports inclosed herewith, there are millions of bushels of corn in the Mississippi Valley that are being sold by the producers at prices ranging from 15 to 20 cents per bushel. While corn sells at these prices in the United States, the people of Spain pay 8 cents per pound for bread. Biscuits manufactured by Peek, Frean & Co., of London, retail in Cadiz for $1 per kilogram.

I believe that Indian corn could be made to take the place of wheat with the working classes. The health and vigor of corn-eating people, together with its low price, are reasons for such belief.

ROBERT W. TURNER,
Consul.

UNITED STATES CONSULATE,
Cadiz, January 22, 1890.

PRICES OF CORN IN THE UNITED STATES.

[Inclosure in Consul Turner's report.]

Kansas City, Mo.—No. 2, cash, 20 cents bid, 21¾ cents asked; January, 21 cents bid, 21½ cents asked. No. 3, cash, 20 cents bid, 21 cents asked; January, no bids nor offerings No. 4, cash, 19½ cents bid, 20 cents asked. No. 2 white, cash, no bids nor offerings.

St. Louis.—No. 2 mixed, cash, 25¼ to 25⅜ cents; January, 25¼ cents bid; February, 26⅓ to 26¼ cents; May, 28⅜ cents asked.

Chicago.—No. 2, January, 29¼ to 29½ cents; February, 29½ to 29⅝ cents; May, 32⅛ cents.

New York.—No. 2 mixed, 39⅛ to 40⅛ cents.

The above are the prices quoted at trade centers; the price to the producer is much less. In the territory tributary to Kansas City a great deal of corn is sold for less than 15 cents per bushel.

LONGEVITY AND MORTALITY IN NORWAY.

REPORT BY CONSUL GADE, OF CHRISTIANIA.

A long life is a great boon, and in most cases also a proof of a strong health and of fair sanitary conditions. From this point of view it is a gratifying fact that the length of life is, in this country, comparatively great and even greater than in any other country from which trustworthy statistic information can be obtained.

The average length of life is generally estimated by investigating how many individuals of a given generation—for instance, of 10,000 or 100,000 children—die during the different years through life, and then by computing how many aggregate years they have lived. According to such estimates made in Norway for the years 1871–'80, a generation of 10,000 had together lived about 495,000 years, which gives an average of 49½ years for each individual. This is more than 8 years over the average life-time in central and west Europe, while in southern Europe and in Russia the length of life is, on an average, still shorter. Sweden and Denmark come after Norway in this respect, with an average of 47 and 46½ years, and then England with 43 years. In Germany the average does not exceed 37 years.

These figures, however, only indicate the mortality of all ages put together and depend partly on the mortality in childhood, which, in some countries, is very great, and partly on the mortality among adults, which is more equal. If, on the other hand, one wishes to know how long people usually live in the course of nature, children should be left out of account, just as the average height of men must be reckoned from that of adults and not of that of children and adults put together.

According to the last tables of mortality for Norway, those who reach the age of 20 years have reasonable prospect of living to be 69, as about half die before and the other half after that age. Men and women of 30 have prospect of becoming 70 or 71 years old; those who are 40, of becoming 72 years old; those who are 50, 74 years; those who are 60, 76 years; and those who are 70, 79½ years.

Women in Norway, as well as in other countries, attain a somewhat higher age than men, and to a further explanation of this subject I subjoin a table of the probable length of life of persons 20, 30, and 50 years of age:

Countries.	Persons of 20 years.		Persons of 30 years.		Persons of 50 years.	
	Men.	Women.	Men.	Women.	Men.	Women.
Norway	67.6	70.1	69.7	71.5	73.2	74.1
Sweden	66.3	69.4	67.8	70.6	71.4	73.4
Denmark	65.5	68	66.9	69.7	70.7	73.1
France	64.2	66.6	66.4	68.5	70.5	72.3
England	61.9	65.1	63.7	66.8	68.9	71
Switzerland	62.7	64.2	63.3	65.8	68.2	69.4
Germany	61.2	64	63.2	65.6	68	69.6

If we look at the columns of 50 years—as those who die before that age must be said to die earlier than falls to the usual lot of man—we discover that the probable length of life in all the countries above mentioned comes very near to the limit of life given in the Bible.

Mortality in Norway is considerably smaller in infancy than in other countries, although of one hundred individuals born alive not less than eleven die during the first year. In other European countries, however, about twice the number die on an average, and there are some districts in Germany where more than a third of the children die before reaching their first year. This favorable proportion for Norway may be partly ascribed to better care, but especially to the fact that they are fed so long on their mothers' milk. Certainly, the cases of mortality might still be reduced, if sanitary knowledge were more general and infants received still better care.

As regards older children, there is no longer a great difference in mortality between Norway and other countries. The most dangerous diseases for children, as diphtheria, scarlatina, measles, etc., prove fatal here, too, and make many homes desolate. On the whole, the comparison is in favor of Norway, and up to the fifth year so decidedly that the average of deaths is 12 to 1,000, against 15 to 1,000 in other countries. Above that age the difference constantly diminishes and mortality decreases here, as well as in other countries. From about the twelfth year a greater mortality exists among boys in Norway than in most other countries of northern and central Europe, while among girls there is still a little less mortality than in other countries. The proportion, however, is not so favorable as might be expected. Something seems to be wrong here, especially with boys, and also, to some extent, with the girls.

Mortality among males is always higher above the age of fifteen, and the increase is greater in Norway than in other countries. Between the ages of twelve and fifteen the maximum of deaths among young men is 4 to 1,000, whereas in their twenty-second year the ratio is 9 or 10 in the same number.

Between the fifteenth and twentieth years mortality among Norwegian young men is 17 per cent. higher than the usual rate in other countries at that age, and between the twentieth and twenty-fifth years the difference amounts to 15 per cent. This is a serious disproportion for Norway and demands attention. Consumption is a frequent cause of death at that age, and many young men probably shorten their lives by intemperate living.

Above the twenty-second year a remarkable improvement appears. Mortality among young men begins to decrease until, at the thirty-second year, the annual rate is a little over 8 to 1,000. Above that age mortality in Norway is again below that of other countries; and remains so to the end of life.

If we now inquire into the cause of the favorable change which the ratio of mortality undergoes between the twenty-second and thirty-second years, it appears to be chiefly attributable to the fact that most males marry between those ages. Mortality among married men is always much smaller than among bachelors. The facts are different with women. There is no great increase of mortality above their fifteenth year, but a small equal increase, continuing from twenty to thirty and further on. Mortality up to the fortieth year is also larger among married women than among spinsters, owing to childbirth, which also makes mortality among women of about forty a trifle larger than among men. At all other ages, except between ten and sixteen, mortality among males is larger than among females.

The average length of life in Norway during this century has been on the increase until very recently. Mortality has decreased through every period of life, with the exception of youth and the first part of manhood, when the increase has been a trifling one during the last two generations.

GERHARD GADE,
Consul.

UNITED STATES CONSULATE,
Christiania, Norway, 1889.

GERMAN MINES AND EMIGRATION.

REPORT BY CONSUL-GENERAL EDWARDS, OF BERLIN.

The superintendents of the coal and iron mines belonging to the three districts of North, East, and West Dortmund report that the twenty-six mines, with a total production of 28,500,000 tons during the years 1875–'86, were worked with profit only in the years 1875 and 1880, the total profits for the twelve years being only 1,288,741 marks, while the total losses were 15,661,986 marks, or a loss of 50 pfennigs per ton. The reports for the years 1887 and 1888 are as follows:

Description.	1887.	1888.
Mines .... number...	29	30
Production .... tons...	4,826,347	5,230,504
Workmen .... number...	17,507	18,876
	Marks.	*Marks.*
Income	26,001,680	31,121,707
Outlay*	27,378,355	32,816,418
Loss	1,376,675	1,694,711

* Including wages, exclusive of officials, as follows: 1887, 13,752,078 marks; 1888, 16,068,632 marks.

It will be seen from the above figures that the average wages in 1887 were 785 marks, or $186.73, per year, and in 1888, 850 marks, or $202.30. The loss per ton to the producers in 1887 and 1888 is said to have been 30 pfennigs. The year 1889 began with better prices, but in May the strike began. In connection with this subject, it is reported that Member of Parliament Letocha has called the attention of the House of Commons to the middlemen and dealers in the mining district of Upper Silesia. Mr. Letocha recently found, in his investigations of the subject, that the mine owners derive absolutely no benefit from the increased prices of coal, because they are under contract to deliver for a term of years coal at the lower prices to the middle-men. At the same time they have been compelled by the workmen to make a small advance in wages and to decrease the hours of labor.

W. H. EDWARDS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Berlin, January 23, 1890.

[Inclosure 1 in Consul-General Edwards's report.]

Table showing the total production of mines of the German Empire.

Product.	Quantity.				
	1884.	1885.	1886.	1887.	1888.
Mineral coals and bitumen:	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**
Pit coal	57,233,875	58,320,398	58,056,598	60,333,984	65,386,120
Brown coal	14,879,945	15,355,117	15,625,986	15,898,634	16,573,963
Graphite	1,925	3,359	2,906	2,960	3,353
Asphalt	41,139	45,412	42,894	34,483	41,534
Petroleum	6,490	5,815	10,385	10,444	11,920
Total	72,163,374	73,730,101	73,738,769	76,280,505	82,016,890
Mineral salts:					
Rock salt	344,797	377,491	444,397	405,420	414,557
Kainit	203,120	242,281	240,421	239,412	318,577
Other potash salts	766,076	678,663	704,849	840,691	916,759
Epsom salts, etc	4,917	4,207	13,850	23,236	13,269
Borax	166	140	145	153	180
Total	1,319,076	1,302,782	1,403,662	1,508,912	1,663,342
Ores:					
Iron	6,554,342	6,509,379	6,051,579	6,701,395	7,402,382
Zinc	632,040	680,655	705,177	900,712	667,761
Lead	162,772	157,869	158,505	157,570	161,777
Copper	593,330	621,381	495,756	507,587	530,956
Silver and gold	25,186	24,561	21,230	25,726	20,390
Tin	186	196	131	126	152
Cobalt	476	617	345	319	339
Nickel and bismuth	25	5	2	2	2
Antimony	1,240	1,824	1,140	323	1,521
Arsenic	9,673	16,628	27,050	38,385	28,710
Manganese	43	31	48	33	42
Sulphur	150,130	116,212	113,656	101,136	109,516
Vitriol and alum	13,813	7,207	2,523	550	515
Total	8,143,256	8,136,565	7,577,142	8,433,864	8,924,063
Grand total	81,625,706	83,169,448	82,719,573	86,223,279	92,604,294
Luxumburg iron ore	2,451,454	2,648,490	2,434,179	2,649,711	3,261,926

* Tons of 100 kilograms (2,205 pounds.)

Table showing the total production of mines of the German Empire—Continued.

Product.	Value.				
	1884.	1885.	1886.	1887.	1888.
Mineral coals and bitumen:	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Pit coal	298,780,192	302,942,158	300,727,695	311,077,310	341,063,330
Brown coal	39,578,345	40,377,832	40,222,263	40,201,381	40,896,384
Graphite	91,700	160,512	121,700	186,342	187,700
Asphalt	231,651	256,147	216,075	186,125	255,250
Petroleum	551,155	470,616	961,545	933,122	1,027,892
Total	339,233,043	344,207,265	342,249,278	352,584,280	383,430,556
Mineral salts:					
Rock salt	1,939,935	1,955,225	2,150,658	1,862,063	1,815,750
Kainit	2,889,606	3,718,566	3,523,014	3,409,015	4,666,663
Other potash salts	7,555,221	7,411,066	7,752,233	9,437,041	10,247,725
Epsom salts, etc	43,573	37,639	113,206	178,260	104,792
Borax	111,124	67,127	52,172	61,069	57,470
Total	12,539,459	13,189,623	13,591,283	14,947,448	16,892,400
s:					
Iron	32,185,997	28,536,051	24,865,016	28,664,251	33,583,137
Zinc	7,819,374	7,647,406	7,722,008	10,022,099	13,747,011
Lead	15,739,655	15,093,212	15,918,627	15,923,240	16,683,853
Copper	18,146,897	19,254,513	14,415,341	14,551,715	17,519,033
Silver and gold	4,818,960	4,289,875	4,478,421	4,177,720	4,068,601
Tin	171,300	189,679	166,650	165,002	182,802
Cobalt	531,588	536,369	485,541	543,471	581,079
Nickel and bismuth	4,546	1,572	705	680	438
Antimony	81,726	115,984	66,051	19,886	81,937
Arsenic	267,984	419,030	815,347	1,022,926	668,147
Manganese	40,335	39,509	88,009	66,197	37,381
Sulphur	1,301,241	958,641	899,181	771,298	848,518
Vitriol and alum	32,530	19,557	7,505	4,625	4,725
Total	81,142,133	77,101,398	69,928,402	75,933,110	88,006,662
Grand total	432,914,635	434,498,286	425,768,963	443,464,838	488,329,618
Luxemburg iron ore	5,357,118	5,377,371	4,778,398	5,341,021	6,377,983

[Inclosure 2 in Consul-General Edwards's report.]

Transmarine emigration from the German Empire, from the German ports, and Antwerp, Rotterdam, and Amsterdam in the month of October and from the beginning of January to the end of October, 1889.

State.	October.	First 10 months.
Prussia and Hohenzollern	5,712	52,115
Bavaria	957	9,817
Saxony	255	2,120
Würtemberg	502	5,277
Baden	377	3,293
Hessen	233	1,814
Mecklenburg-Schwerin	461	1,128
Saxe-Weimar	38	273
Mecklenburg-Strelitz	130	245
Oldenburg	150	1,166

Transmarine emigration from the German Empire, etc.—Continued.

State.	October.	First 10 months.
Brunswick	29	241
Saxe-Meiningen	16	153
Saxe-Altenburg	7	62
Saxe-Coburg-Gotha	18	161
Anhalt	4	58
Schwarzburg-Sonderhausen	8	73
Schwarzburg-Rudolstadt	14	77
Waldeck	8	83
Reuss (older line)	5	45
Reuss (younger line)	10	127
Schaumburg-Lippe	2	24
Lippe	9	86
Lübeck	5	70
Bremen	115	790
Hamburg	233	1,559
Alsace-Lorraine	103	834
Not specified	8	82
Total	9,409	81,773

STRIKE OF THE VIENNA PEARL-BUTTON WORKMEN.

REPORT BY CONSUL-GENERAL GOLDSCHMIDT.

I have the honor to report on a subject attracting the attention of Europe, and which will be of unusual interest in the United States (that country being by far the largest purchaser of this article), viz, the strike of the pearl-button workmen. This strike was begun on the 21st of November. It includes over four thousand men, all living in Vienna and its suburbs, and no one can predict when or how it will end. It adds one more chapter to the long list of strikes in Europe, the most important of which were that of the dock hands in London, the cabmen in Paris, and the miners in Westphalia. In the latter one the Government saw fit to order investigations, and aided the strikers by bringing pressure to bear upon the large companies.

If the subject is carefully studied, one can readily see that no strike is ever begun until the workmen have given up all hope of bettering their situation, for it is a desperate move on their part, and does not always end successfully.

The strike of the pearl-button workers can not be considered as occurring at an opportune time, for an unusually severe winter is just setting in, employment is almost impossible to find, and starvation is staring them in the face; yet at a meeting recently held they declared they would rather starve to death with their wives and children than suffer the yoke they had borne so long and submit to the miserable wages heretofore paid them, an able-bodied, industrious man receiving only $3 to $3.50 a week. This in itself is bad enough, but out of this he has to furnish his own light and tools, while many good workmen earn even less than this.

The great peculiarity of this strike is that the employers, as well as employés, are striking; in fact, the former have announced that they will allow their work to rest. This proves conclusively that a screw is loose somewhere, and that the Vienna mother-of-pearl industry has reached a point where it ceases to yield a profit. The great number of small manufacturers, who, as a rule, are in poor circumstances, claim that some one has reaped such great benefits from this industry that nothing remains for either manufacturer or workman. This "some one" is the exporter or commission-merchant, who, they say, furnishes them with the raw material at high prices and buys their products at a figure which leaves them no profit, while the exporters themselves have become wealthy. So we see that these exporters are looked upon by both manufacturer and workman as the cause of the downfall of the pearl-button industry, and against whom both master and workman are united now. "War against the exporters" is the by-word of all assemblies.

RISE AND FALL OF THE INDUSTRY.

Thinking a short history of the development of the pearl-button industry may be quite apropos here, I beg to submit the following: The mother-of-pearl industry, which was formerly merely a retail business in Vienna, made a great advancement in the sixties, and, with improved working implements, better articles were produced from the raw material; and the master, as well as the workmen, was consequently well paid. As the buttons improved in quality, and at the same time became cheaper, the demand for them increased. The number of workmen became so great that the local demand for pearl-buttons was not only supplied, but a surplus began to form. Naturally, the manufacturers sought foreign markets, and they were fortunate in exporting their wares.

Soon the United States* became the chief importing country, and has continued so ever since, with the exception of the time during the civil war.

The demand for laborers became so great that the employers fairly sought for employés. In the meanwhile the exporters laid their plans so well that they reaped great profits from the general success.

This sudden advancement of the mother-of-pearl industry in Vienna occasioned the building of factories in Bohemia and Moravia for the development of a similar industry there, which was not to injure the Vienna manufactories, and which grew very rapidly and successfully, owing to labor being cheaper there than here.

But, like every thing else, the Vienna mother-of-pearl industry had its culminating point, and it came during the time of the great financial crisis in Vienna in 1873. From that time a general stagnation began.

During the following year the decline was not very noticeable, because such a great industry can not be extinguished in one or two years, but the time soon came when it was in a precarious condition.

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* The imports into the United States of buttons from Austria-Hungary were as follows: 1880, $22,000; 1884, $1 496,000; 1887, $1,612,000; 1888, $1,558,000; 1889, $1,352,000. Imports into the United States of buttons from all countries: 1880, $3,877,000; 1884, $3,480,000; 1887, $3,768,000; 1888, $3,711,000; 1889, $3,352,000.

In the annual reports of the Vienna Chamber of Commerce during the last ten years the mother-of-pearl industry is spoken of in very strong terms, and at the same time the cause of its downfall is given.

The chamber of commerce report in the year 1880 gave a reason for the regress of this industry as follows:

> The influence of French competition in the foreign markets is becoming noticeable.

In the report of 1882 the remark is made:

> We are becoming more and more displaced by the high tariff of the German market and the increasing production there.

In the year 1884 it is observed—

> The industry in Moravia and in the Erzgebirge of Bohemia has become our competitor, owing to the exceedingly low wages paid there, and is prepared to eventually displace the production here.

The year 1885 brings us a step farther, and we learn the following from the annual report:

> Many employers are reducing the number of their workmen; the majority of these go to Germany, where, protected by the high tariff, they are introducing the old Vienna industry more and more. In Bohemia and Moravia important competition arises from year to year, which, favored by cheap labor, is constantly surpassing the Vienna industry in its production.

On the whole, this article complains of overproduction, which will prevent recurrence of the former success.

The following year was more favorable. There was great distress in both the province and here among the workmen, and the wages had to be raised eventually. But, after this little ray of hope, the situation again grew worse, and in the report of 1888 it was found that, in order to compete with Bohemia in foreign markets, cheaper material had to be manufactured.

Articles made of mother-of-pearl, aside from buttons, have long ceased to be made here, and Saxony has the satisfaction of supplying any demand for them.

From this year's report of the chamber of commerce every reader must have one impression, and that is, that the mother-of-pearl industry has played its rôle in Vienna, and that it has been removed to other places, where living is less expensive and consequently labor cheaper. This is the history of the pearl-button industry in Vienna, the exports of which amounted to 4,000,000 florins yearly.

Different attempts have been made among the small manufacturers to better the prices, though it was they themselves who, in their eagerness to dispose of their wares in order to raise the funds to pay off their workmen, undersold their competitors and, by doing so, cut the ruling prices. There are about five hundred of these small manufacturers; they are the proprietors of small shops, and employ from five to thirty men each.

It can not be denied that among the Vienna exporters there are several firms which availed themselves of the unfavorable condition of the pearl turners and hastened the downfall of the same. But it is hardly fair to blame all on account of a few, and to forget the services the exporter has rendered toward the spreading of this manufacture in foreign lands. It is true the exporters are no idealists; they take the wares where they find them cheapest.

Among other reasons for the downfall of this industry is the change of fashion in buttons, a metal button being preferred to a pearl one. This has caused a great falling off in the demand both in India (which was formerly a great consumer of pearl buttons) and also in Austria.

I beg to give a short résumé, as follows, of the most important reasons of this great crisis: The development of a powerful and increasing competition in Bohemia and Moravia at much lower wages than paid in Vienna; the increase of competition in France and Germany; the change in the fashion—and this seems to be the key-note of the situation; ruinous competition; unnecessary personal quarrels among the commission men here and their importing house in New York, which cause the present unnecessary low prices in the New York market, and for which they alone are to blame.

No hasty words or passionate action will help the matter. There is no doubt that the exporters must and will yield to the demands of the small manufacturers, and they in turn must adopt a new and higher price-list demanded by the striking workmen. Half a dozen commission firms here, who buy from the small manufactories their whole product, control from 80 to 90 per cent. of all the buttons exported from Vienna to the United States, and have it within their power to raise the prices in the American market.

It is to be expected that the commission men of Vienna will unite with the large importing houses in New York and other American markets to improve the prices, do away with ruinous competition, and lay aside all selfish action, so as to enable the small manufacturer to pay his men living wages, thus doing away with disastrous strikes. It would also be a good idea to have a yearly meeting, in January, where the question of prices to be paid during the year should be settled in a friendly manner by all parties concerned—commission man or importer, small manufacturer and laborer.

Indications are at this moment that the respective governments of Europe see the necessity of interfering in this great fight between capital and labor, and seem inclined to lend a helping hand to the laboring classes in their struggle to improve their condition; and it is to be hoped that the time will soon come when the just demands of the workmen will be satisfied and the starvation wages of Europe will be a thing of the past.

JULIUS GOLDSCHMIDT,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, December 13, 1889.

END OF THE VIENNA STRIKE.

REPORT BY CONSUL-GENERAL GOLDSCHMIDT.

I have the honor to report, as supplementary to my dispatch of December 13, 1889, to which I beg leave to refer herewith, that the strike of the pearl-button workmen has come to an end.

In my last report I said:

> There is no doubt that the exporter must and will yield to the demands of the small manufacturer, and they in turn must adopt the new and higher price-list demanded by the striking workmen.

I am pleased to state that my predictions have been verified. The strike of the mother-of-pearl manufacturers and their workmen, who jointly struck for higher wages and better prices, respectively, as against the exporters and commission houses of pearl-buttons, has turned out to be a victory for the strikers.

The importing house of buttons, Rothschild Bros. & Co., in New York city, which is largely buying in this market, but only from the small manufacturer direct, without the aid of the commission houses, stepped forward boldly and declared that the latter absorbed too large a profit, that the importer of the United States could save from 10 to 20 per cent. by buy-buying direct in this market; hence they could afford and were willing to grant the workmen the advance asked for. They further agreed to buy the whole product of the Vienna manufacturers, provided that for the present, in order to give the market a chance to settle, the working-days should be reduced accordingly. I herewith inclose a translation of an article from one of the leading papers of Vienna, the Neues Wiener Tagblatt, giving an account of the proceedings of the meeting in which the strike was declared off.* From this you will learn that the Vienna representative of the New York firm of Rothschild Bros. & Co. in person attended the joint meeting of the manufacturers and workmen, boldly stated the case, and agreed to arbitrate, now and in future, with a standing committee of both masters and workmen. There was great rejoicing, and the American pluck, energy, and sense of justice was duly applauded. The Vienna exporters, who were very reluctant to deal with the representatives of the labor organizations, and who acted indifferently during the whole trouble, now see the American importer deal direct with the producer, showing conclusively that in certain branches of industry and under certain conditions and circumstances the middle-men can be dispensed with. In this particular case his profit and commission go into the empty pockets of the workmen, and will help to improve the deplorable condition of the pearl-button industry of Vienna.

In conclusion, I beg to say that the result of this strike is another indication that higher wages will prevail in Europe. The idea so universally entertained in the United States that European wages are immutably fixed, and will fluctuate only a little in either direction, will no longer prove true. The change will be radical, since the influences of the Government and public opinion are so conspicuously exerted in favor of labor. People begin to see that the purchasing power of the masses determines the prosperity of a country much more than their willingness to labor cheaply and to live meanly. It is also quite reasonable to assume that the higher wages are in Europe the easier it will be to maintain a standard of good wages in the United States.

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* Inclosure not published.

JULIUS GOLDSCHMIDT,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, December 27, 1889.

AGRICULTURAL HAND-LABOR AND MACHINERY.

REPORT BY CONSUL RYDER, OF COPENHAGEN.

GROWING SCARCITY OF HAND-LABOR.

The complaints so constantly made here by agriculturists of experiencing great difficulty in procuring a sufficient and reliable number of working hands is also to be heard from similarly situated parties in other countries. There, as well as here, the phenomenon is the same—the large towns acting as magnets in attracting to their centers the working hands from the land districts, which is plainly shown by the tabular returns.

As regards Denmark, the proportional increase in the decennary 1870–'80 (the latest for which returns have been made) has been of the following nature, namely:

Districts.	Increase by births.	Increase by removals.	Collective increase.
Copenhagen	20,138	48,053	68,191
Towns in the islands	14,484	1,239	15,723
Land districts in islands	76,466	*51,474	24,992
Towns in Jutland	15,336	13,550	28,886
Land districts in Jutland	97,776	*46,270	51,506

* Decrease.

In the period from 1870 to 1880 it is thus shown that in round numbers 100,000 persons have been withdrawn from the agricultural districts, of which the towns have taken about 60,000, whilst the remaining 40,000 have emigrated. In other countries the towns have even exercised a still greater influence than has been the case in Denmark. In Germany, for example, the rural population during the five years of 1880–'85 is found to have been reduced by 150,000, whilst the towns have been increased by 1,500,000. In France, in the period 1881–'86, the rural population has been diminished by about 125,000, whilst the towns have met with an increase of 400,000 souls. The attractive powers of the towns will naturally be greater during a time of commercial prosperity and less during one of depression; but it will without doubt continue for a long time to be a factor of essential consequence in the land-labor question. In Denmark it has so far been confined to discussions on this important subject; it has, on the other hand, in wide-spread districts abroad, reached a more advanced stage; there it has passed from words to action, practical measures having been taken either with the object of raising the whole standard of the laborers' habits and comforts of life, in the hope of thereby binding them more closely to their homes, or else by seeking to counteract the impediments placed in the way of agriculture through this constant exodus of the laborers to the towns. Viewing the insufficient number of serviceable and labor-saving agricultural machines brought into use as being one of the main causes of this chronic scarcity of agricultural laborers, it is on this point that the attention of German agriculturists of late has been most specially directed.

FARM-MACHINERY UNIONS.

As offering some compensation for this want of human labor, recourse has been had to an increased intensive employment of agricultural machinery; and where the solitary individual has not had sufficient capital to provide himself with the necessary costly machines, numbers have combined together in associations for the purchase and joint use of such machines. And, as it may not be without interest to learn in what manner some of these societies have organized themselves; the following statutes of one of these unions are here given, viz:

(1) The association purchases serviceable agricultural machines and implements, and lends them to its members.

(2) Members subscribe as shareholders, receiving an interest of 5 per cent. per annum on their shares, no member being allowed to own more than a fixed number of such shares.

(3) Any member desirous of using implements belonging to the society must make application to the manager. The employment is regulated in accordance with the given notifications in their successive turns. No notice shall be sent in earlier than eight days before the day on which the machine or implement is required. The lending is made by the day, and the application for the use of the machine may be made for the day or the half-day. No member shall be allowed the same implement for more than one day at a time whenever orders have been received from others for the use thereof. The half-day to end at 12 o'clock (noon), when the machine shall be returned to the depository, or delivered over to the successor, in cases where permission has been granted by the manager. Whomsoever does not punctually deliver back the machine or implement at the time stipulated shall pay a fine of threefold the amount of hire.

(4) The hire, the amount of which will be regulated by a tariff fixed at a general meeting of the members, shall be paid to the manager at the time

of giving notice. In the event that a member should not have use for the machine at the appointed time, he shall have no claim for return payment of the hiring amount; but, on the other hand, it will be open to him to allow another member to make use thereof.

(5) For all damages sustained during the use of the machine the lender will be responsible. After repairs, such as may have lasted more than two days, the machine will again be ready for use according to the regular turn of the previously given notices. Should the party, however, on account of the delay which has been occasioned, have no use for the machine at the appointed day, he will be entitled to claim the return of the amount of hire.

(6) When the interest, repairs, and all other expenses have been defrayed out of the incoming hiring sums, the one-half of the net income shall then be employed in the redemption of shares, in such manner that a fixed number of shares shall come to be redeemed; the other half of the net income to be employed in the purchase of more implements. The owner of the redeemed shares will receive a certificate of membership giving him the right of voting at the general meetings and legitimizing him as member.

(7) There shall be elected each year a committee consisting of three members for the purpose of testing new machines and implements, as well as for bringing before the meeting any proposals for fresh purchases.

Such co-operative associations for the promotion of these interests must unquestionably be of great value in all places where a great portion of the land is subdivided into small allotments, as is the case in this kingdom, for the reason that many of the owners of the land will not only be unprovided with sufficient capital to admit of the purchase of the costly agricultural machines for plowing, threshing, sowing, and reaping, etc., but they would not at the same time be able to find sufficient work for the same towards recouping themselves for the outlays; whilst, on the other hand, with the joint action of the members of these societies, both the necessary capital and full employment may be secured with all prospects of mutual benefit to the members, together with full remuneration for their pecuniary advances.

HENRY B. RYDER,
Consul.

UNITED STATES CONSULATE,
Copenhagen, December 27, 1889.

AUSTRALASIAN HARVEST.

REPORT BY CONSUL GRIFFIN, OF SYDNEY.

Very favorable reports have been received from the principal wheat-growing districts in New South Wales, as well as from other parts of Australasia, as to the condition of the harvest now being gathered. It is too early to give any thing more than a rough estimate of the total yield of grain in New South Wales, or indeed in any of the Australasian colonies, except in Queensland; but that can scarcely be called a wheat-producing colony, as it seldom has more than 9,000 acres under wheat. Last year the acreage under wheat was 9,305 acres, and the total yield was only 8,263 bushels, against 182,308 bushels in the year preceding (1887). This was a fair average yield for that colony. The area under wheat this year is about 9,500 acres and the estimated yield 270,000 bushels.

The reports from the other colonies are more or less imperfect, but it is possible that the total yield of the whole of the five Australasian colonies, namely, New South Wales, Victoria, South Australia, Queensland, and West Australia, will be about 25,000,000 bushels. The harvest of Tasmania and New Zealand may increase the amount by 10,000,000 bushels, making a total of about 35,000,000 bushels. The accounts from the Mudgee and other districts in New South Wales are encouraging. The wheat crop in the Mudgee district is said to be so heavy that much of it had fallen to the ground. The average for the district, as I am informed by the agricultural reporter for the Sydney Town and Country Journal, will be close on to 30 bushels per acre. Last season the wheat crop was almost a total failure. The hay crop is very heavy, the average yield being from 2½ to 3½ tons per acre. The Sydney Mail of the 18th of January says that the wheat crop has been injured to some extent by rust. It says:

> Threshing is going on apace all over the district. The danger of bush fires is great, owing to the very long, dry grass that is everywhere, and farmers naturally prefer to see their grain out of danger. The mills are refusing great quanties of the wheat, owing to its being so much pinched with rust. One local wheat buyer informs us that he has only received as yet two really good samples, all the rest having deteriorated in the manner indicated.

The Town and Country Journal states that rust appears to have been more prevalent in the neighborhood of Albury and along the sea-coast than elsewhere.

There seems, however, no room to doubt that rust has seriously affected the crop and that the total yield for the whole colony will not be more than about 7,000,000 bushels, although one of the correspondents of the Town and Country Journal states that the yield will not be less than 13,000,000 bushels. This would leave a surplus of over 4,000,000 bushels for export. The population of the colony was given by the Government statist at 1,085,740 on the 31st of December, 1888, and the annual consumption of wheat at 7,909,104 bushels, or about 7.4 bushels per head. This is higher than that of most countries, that of England being 5.9 bushels and Germany only 3 bushels per head. At Germantown, in New South Wales, the yield of wheat is reported as the best for many years.

> The season was very favorable for new land, but old paddocks compare most unfavorably, owing to the growth of sorrel, cockspur, and other weeds which the wet season promoted. Some of the new land, that is, land which has been cropped only a few seasons, shows excellent returns, some going as high as 20 bushels per acre, while older land will yield from 10 to 12 bushels to the acre. Owing to the appearance of rust after the wheat was in ear, fears were entertained that not only would the yield be much less than appearances denoted, but that the grain would be inferior in quality. The grain, however, is of good quality, with the exception of a few instances of late sowings, when the grain is somewhat pinched; but the area so affected is small.

All the Gulgong wheat is in, and the threshing-machines have been started. The returns are good, although the wheat is a little pinched. Bond's 20 acres, close to town, yielded 600 bushels. The district will average fully 20 bushels per acre.

The following are reports from some of the agricultural centers in the Albury district, published in the Sydney Mail of the 18th of January:

Young Creek.—There are about 2,000 acres under wheat, and the average yield is about 9 bushels. All the grain is more or less pinched, and some very badly.

Howlong.—The estimated yield is 12 bushels to the acre; quality very much affected by rust, there being very few really good samples. Most of the wheat is a little pinched, and some of the late sown very badly.

Bowna.—The approximate area in this neighborhood is 400 acres under grain and 400 acres cut for hay. The yield will average 15 bushels, and the quality of grain is fair.

Boree Creek.—The crops in this locality looked very promising early in the season, and but for the excessive rain-fall late in the year the yield would have been exceptionally good. As it is, the crop will not be above the average. Mr. R. Guest has 200 acres under wheat, and estimates his crop at 12 bushels to the acre. The quality of grain is good.

Corryong.—The area under cultivation was much larger last year than heretofore, altogether about 500 acres being cropped, and almost all with wheat. Very little threshing has been done yet; but those who have threshed have been much disappointed with the result, and the average is not now expected to be more than from 10 to 12 bushels per acre. This is chiefly due to the very wet season we have had. Many of the crops are badly rusted. The grain is, in consequence, not of fine quality. Much of it is small and parched.

Tumberumba.—The area under crop is far in excess of former years, and the wheat crop looked exceedingly well until a short time ago, when it was discovered that the late sown ones were attacked by rust, and for this reason fully three-fourths of the wheat crop in this district have been cut down for hay. The remainder, or early sown crop, is good, and will probably yield from 20 to 30 bushels per acre, which may be considered as the average here in favorable seasons. The oat crop is abundant, and will in many instances yield up to 40 bushels to the acre. The early potato crop is splendid, and the late one is looking well as yet; but if the very hot and dry weather we are experiencing at present should continue, the crop is sure to suffer.

Mr. Angus Mackay, agricultural instructor at the Technological College, Sydney, informs me that, notwithstanding the favorable reports received, the harvest will be below the average. Under date of the 13th of January, he writes:

I wish I could join in the assumption that in New South Wales we are harvesting, or have harvested, a satisfactory wheat crop; but, having been through very large areas of the wheat country since harvest commenced, and being in immediate contact with the growers in the southwestern districts and also in New England, it has to be said with very great regret that the wheat harvest is not satisfactory. No small number of wheat growers, and many of them careful and capable farmers, are more bitterly disappointed with their wheat this year—with its quality and the quantity—than ever before. Were this state of things confined to a few, it might be well to say little about it, to accept the situation as amongst the contingencies of agricultural life.

The accounts given by the Melbourne agricultural journals are not so favorable as was expected a few weeks ago. Since the harvest commenced it has been ascertained that the rust has made sad havoc in many places. It is now said that the average in some parts of Victoria will be reduced fully

4 bushels per acre by the rust, and that the injury wrought by the same disease is still greater in New South Wales. The area under wheat in Victoria is given by a competent authority at 1,200,000 acres, and the average yield as 9.927 bushels per acre, which would give 11,912,000 bushels. The total area under wheat in Victoria last season, that of 1888–'89, was 1,248,000 acres, and the average yield 7.635 bushels. The total crop was 9,529,000 bushels, but that year was one of the worst in the history of the colony.

According to the estimate, the increase this season in Victoria will be only 2,383,500 bushels, instead of 7,000,000, as was expected. Of the total yield it is estimated that more than half, say 6,090,500 bushels, has been supplied by three counties—Kara Kara, Borung, and Iowan.

So far as relates to New Zealand no estimates have been received, the season being later than in this colony. It is worthy of remark that New Zealand headed the list of these colonies last season (1888–'89) in the production of wheat, as she also did in oats, barley, and potatoes.

The following tables show the land under cultivation and the produce of crops for the year 1888–'89 in the colonies of the Australasian group. They have been prepared by the Government statist of Victoria.

TABLE I.—*Land in cultivation.*

[The agricultural statistics in most of the colonies are collected in the months of February or March of each year. The present returns are for those months of 1889. In calculating the rates of tillage per head, the population on December 31, 1888, has been taken.]

Name of colony.	Total.	Per head of population.	Wheat.	Oats.	Barley.	Maize.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Victoria	2,564,742	2.35	1,217,191	197,518	83,483	5,789
New South Wales	999,204	0.92	304,803	7,984	3,318	166,101
Queensland	214,002	0.55	9,305	642	324	85,966
South Australia*	2,793,037	8.77	1,605,000	7,264	15,697	....
West Australia	106,015	2.52	30,739	1,787	5,009	61
Total	6,677,000	2.28	3,167,038	215,195	107,831	257,917
Tasmania	481,533	3.29	40,657	33,834	4,670	....
New Zealand	1,465,319	2.41	362,153	367,225	45,027	4,768
Grand total	8,623,852	2.34	3,569,848	616,254	157,528	262,685

Name of colony.	Other cereals.	Potatoes.	Hay.	Vines.	Green forage.	Other tillage.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Victoria	32,331	43,074	411,332	12,750	192,540	368,734
New South Wales	985	15,419	209,531	7,072	228,808	55,183
Queensland	497	7,303	20,978	1,703	11,281	76,003
South Australia*	4,601	5,666	308,429	4,590	33,296	808,494
West Australia	720	481	23,914	894	268	42,142
Total	39,134	71,943	974,184	27,009	466,193	1,350,556
Tasmania	7,476	13,653	52,521	37	180,350	148,335
New Zealand	14,693	26,331	50,656	....	419,555	174,911
Grand total	61,303	111,927	1,077,361	27,046	1,066,098	1,673,802

*No agricultural statistics having been collected in South Australia in the last four years, the figures for 1884–'85, except in regard to wheat, which have been estimated, have been again repeated for that colony.

TABLE 2.—*Produce of crops.*

Colony.	Wheat.		Oats.		Barley.	
	Total.	Per acre.	Total.	Per acre.	Total.	Per acre.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
Victoria	8,647,709	7.10	2,803,800	14.20	1,131,427	13.55
New South Wales	1,450,503	4.76	109,931	13.77	36,760	11.08
Queensland	8,263	0.89	3,626	5.65	7,432	22.94
South Australia *	6,187,000	3.85	43,584	6	109,879	7
West Australia	322,739	10.50	41,852	23.42	73,630	14.70
Tasmania	819,497	20.16	946,354	27.97	109,979	23.55
New Zealand	8,770,246	24.22	10,977,065	29.89	1,402,537	31.15
Grand total	26,205,957	7.34	14,926,218	24.22	2,871,644	18.23

Colony.	Maize.		Other cereals.†		Potatoes.	
	Total.	Per acre.	Total.	Per acre.	Total.	Per acre.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Tons.*	*Tons.*
Victoria	267,155	46.15	372,468	11.52	131,149	3.04
New South Wales	4,910,404	29.56	12,899	13.10	36,839	2.39
Queensland	2,181,681	25.38	17,507	35.22	20,711	2.84
South Australia *	....	....	32,207	7	11,332	2
West Australia	1,769	29	‡14,000	19.44	1,974	4.10
Tasmania	....	....	124,954	16.71	66,721	4.88
New Zealand	207,275	43.47	357,061	24.31	133,682	5.08
Grand total	7,568,284	28.82	931,096	15.19	402,408	3.60

Colony.	Hay.		Wine made.
	Total.	Per acre.	
	Tons.	*Tons.*	*Gallons.*
Victoria	308,117	0.75	1,206,442
New South Wales	134,911	0.64	805,813
Queensland	32,291	1.54	144,239
South Australia *	104,214	0.50	400,000
West Australia	23,914	1	135,888
Tasmania	58,290	1.11	....
New Zealand	71,296	1.41	....
Grand total	733,033	0.68	2,692,382

* No agricultural statistics having been collected in South Australia during the last four years, a rough estimate has been made of the produce of crops in that colony for 1888–'89.

† Including beans and peas, except in the case of New South Wales.

‡ Estimated.

It is said that Mr. Hayter, Government statist for Victoria, has for a long time been dissatisfied with the want of some uniform method for the collection of agricultural statistics in the different Australasian colonies. In Victoria the method has been to procure the returns in January through the shire county clerks, as their duties require them to obtain from the farmers certain information as to their land and the crops. Very often, it is said, these officials make up the returns upon imperfect data and before opportunity is afforded them to visit the farmers.

I am informed through the public press that the minister for agriculture in Victoria has determined that the returns of the area of land under cultivation and the condition of the crops shall in future be obtained from personal inspection after sowing time. The first estimate, I understand, will be published in August, and from that time monthly or bi-monthly reports will be issued, giving the condition and the progress of the harvest. These returns will be issued by the Victorian department of agriculture.

With reference to New South Wales, the method at present pursued is to procure the agricultural statistics through the police bureau, as the police are charged by law with the duty of visiting, among others, the farmers at a fixed period during the year for the purpose of making up the electoral rolls of all persons qualified to vote for members of the legislative assembly of New South Wales. The time is not opportune; in many districts it is impossible for the farmers and occupiers of the land to give the police correct information as to the anticipated crop returns.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, January 22, 1890.

FURTHER ARCHÆOLOGICAL DISCOVERIES IN SYRIA.

REPORT BY CONSUL BISSINGER, OF BEIRUT.

As nearly as can be ascertained from reliable sources, the facts concerning the recent archæological discoveries near Sidon appear to be as follows:

In a cave near the foot of Mount Lebanon, about 2 miles distant from the Sidon sea-shore, five stone sarcophagi, with various finely carved figures upon them, have recently been discovered; but, as the inscriptions upon them have not yet been deciphered, and the sarcophagi, as well as the photographs taken thereof, are jealously guarded from intrusive eyes, nothing positive as to the period of classic art to which they belong can be stated with any degree of accuracy. At some later date it may be possible to give fuller details.

The cave itself is 27 feet long, 2 feet wide, and 7½ feet high. On the upper side wall of the cave, opposite to the entrance door, there is a mosaic of most exquisite workmanship. It represents the colored figure of a woman in most delicate mosaic, belonging, doubtless, to some distinguished old Greek family. Judging from the Greek inscription, the mosaic would not seem to be of very remote antiquity; but, owing to its incomparable beauty and perfection, it will prove a most valuable addition to the collection of the Imperial Ottoman Museum at Constantinople.

Another authority claims that there are two figures of women in mosaic, one in green, the other in blue, both being pronounced as Phœnician remains.

Other relics, found in another site, are in the shape of columns, figures, statuettes, and various ornaments of Greek workmanship, all of which have been photographed and sent to the Imperial Ottoman Museum at Constantinople, where the originals are soon to follow.

ERHARD BISSINGER,
Consul.

UNITED STATES CONSULATE,
Beirut, January 27, 1890.

COMMERCE OF ADEN.

REPORT BY VICE-CONSUL MOORE.

GENERAL TRADE.

Trade at this port has increased during the past year by over 13,958,000 rupees, or about 27 per cent. above the value of the trade for the preceding year, and, in fact, is the most prosperous year Aden has ever had. Merchants have been offered greater facilities for importing and exporting goods during the past year than heretofore, owing to the increase in the number of vessels calling at Aden, and by the establishment of a regular freight line between Aden and Bombay.

The decided increase in the value of the imports is explained by the enormous increase in the imports of cotton sheetings from the United States and cotton twist and yarn from Great Britain and other European powers.

The increase in exports from Aden is mainly due to the amount of coffee, hides, and skins shipped to the United States and gum and coffee to European ports. Zanzibar has also taken much of the export trade; this, it may be supposed, is due to the activity of the Germans on the east coast of Africa. The ports of Suakin and Massowah have also contributed to the increase, owing to the more settled state of these countries than was the case last year. The trade with Massowah, it is supposed, is due to the more reconciled state of affairs between the Abyssinians and Italians.

The trade of Aden is divided into foreign, Indian, and inland trade, and under these three heads the trade for the year 1888–'89 is compared with that of the preceding year in the following table:

Division.	1887–'88.	1888–'89.	Increase.
	Rupees.	*Rupees.*	*Rupees.*
Foreign trade	36,991,485	49,511,053	12,519,568
Indian trade	12,428,285	12,816,613	388,328
Inland trade	2,276,490	3,326,875	1,050,385
Total	51,696,260	65,654,541	13,958,281

The value of the export and import trade, contrasted with that of the preceding year, was as follows:

Description.	1887–'88.	1888–'89.	Increase.
	Rupees.	*Rupees.*	*Rupees.*
Total imports	28,542,421	35,004,908	6,462,487
Total exports	23,153,839	30,649,633	7,495,794
Total	51,696,260	65,654,541	13,958,281

The following table shows the total value of the export and import trade for the past five years, with a total average:

Years.	Total value of imports by sea and land.	Total value of exports by sea and land.	Value of entire trade.
	Rupees.	*Rupees.*	*Rupees.*
1884–'85	21,450,030	17,759,047	39,209,077
1885–'86	24,316,326	19,575,813	43,892,139
1886–'87	26,218,681	21,237,928	47,456,609
1887–'88	28,542,421	23,153,839	51,696,260
1888–'89	35,004,908	30,649,633	65,654,541
Average	27,106,473	22,475,252	49,581,725

FOREIGN TRADE.

The total value of the foreign trade of Aden for the year 1888–'89 is 49,511,053 rupees, as against 36,991,485 rupees for the year 1887–'88, as follows:

Description.	1887–'88.	1888–'89.	Increase.
	Rupees.	*Rupees.*	*Rupees.*
Total imports	16,981,126	22,298,968	5,317,842
Total exports	20,010,359	27,212,085	7,201,726
Total	36,991,485	49,511,053	12,519,568

Or an increase of over 36 per cent. Taking foreign imports and exports separately, merchandise imported shows an increase of over 31 per cent. and exports an increase of over 36 per cent.

INDIAN TRADE.

The total value of the Indian trade of Aden for the year 1888–'89 is 12,816,613 rupees, as against 12,428,285 rupees for the year 1887–'88, as follows:

Year.	Imports.	Exports.	Total.
	Rupees.	*Rupees.*	*Rupees.*
1887–'88	10,026,137	2,402,148	12,428,285
1888–'89	10,443,409	2,373,204	12,816,613
Increase	417,272		388,328
Decrease		28,944	

Which, separately, shows an increase in imports of about 4 per cent. and a decrease in exports of 1¼ per cent.

INLAND TRADE.

The total value of the inland trade of Aden for the year 1888–'89 is 3,326,875 rupees, as against 2,276,490 rupees for the preceding year, or an increase of 1,050,385 rupees, or about 40 per cent.; and in the following table will be found the amount of imports and exports, as compared with the preceding year:

Years.	Total value of land imports.	Total value of land exports.
	Rupees.	*Rupees.*
1887–'88	1,535,158	741,332
1888–'89	2,262,531	1,064,344

TRADE BY COUNTRIES.

The following table shows imports and exports distributed according to countries, and compared with those of the preceding year:

Countries.	Imports.		Exports.	
	1887–'88.	1888–'89.	1887–'88.	1888–'89.
	Rupees.	*Rupees.*	*Rupees.*	*Rupees.*
United Kingdom	4,093,581	5,951,748	1,704,746	1,951,163
Austria	393,481	463,643	990,439	1,320,333
France	156,661	197,417	2,421,712	2,807,620
Italy	75,550	86,951	175,333	211,393
Other countries in Europe	153,016	98,478	150,236	144,290
United States	709,435	1,440,707	3,316,736	4,819,183
Egypt	363,236	322,447	427,348	435,052
Abyssinia	575,429	243,450	1,908,019	2,495,207
East coast of Africa	3,893,698	4,923,673	3,652,581	5,054,371
Zanzibar	565,316	421,768	887,266	2,077,647
Mauritius	131,445	240,998	8,400	309,046
Arabia	5,017,538	6,591,106	4,041,087	5,220,795
Perim Island	6,551	6,496	79,183	97,415
Turkey in Asia	306,429	539,337	33,651	34,663
Persia	74,342	184,180	40,301	23,767
Straits Settlements	279,509	431,141	65,795	90,070
China (Hong-Kong)	146,281	98,061	11,034	14,904
Other countries in Asia	39,628	57,367	13,034	6,733
Turkey in Europe	....	....	80,111	95,143
Java	....	....	130	1,510
Japan	....	....	3,217	1,780
Ports in India	10,026,137	10,443,409	2,402,148	2,373,204
Inland trade	1,535,158	2,262,531	741,332	1,064,344
Total	28,542,421	35,004,908	23,153,839	30,649,633

IMPORTS BY COUNTRIES.

United States.—The import trade from the United States, consisting almost wholly of heavy brown cotton sheetings and kerosene-oil, shows a large increase of 731,272 rupees, or 103 per cent., over the preceding year. This nearly compensates for the previous year's decrease of 837,672 rupees, which is due mainly to the re-establishment of American piece-goods, which, during the year 1887–'88, had fallen considerably. It is to be regretted that there are no importations of twist from the United States, while all European countries are steadily building up a trade in that article.

It is gratifying to note, however, that the United States stands a firm second among the western powers as shippers to the Aden market, and is only exceeded in amount by the United Kingdom.

United Kingdom.—The imports from the United Kingdom show a very large increase of 1,858,000 rupees, or over 68 per cent. The imports are principally coal, cotton goods, twist, glass and hardware, liquors, provisions, metals, etc. There has been an enormous increase in the importation of cotton twist from the United Kingdom of about 1,500 per cent., it having exported in 1887–'88 45,800 pounds and this year 699,669 pounds.

Other countries.—The imports from other European countries show a slight increase, mainly in cotton twist and piece-goods, and the increase in imports from British India is small, owing to the falling off in the demand for native cotton piece-goods and tobacco.

The inland imports show an increase of about 30 per cent., mainly in fodder, water, and wood.

EXPORTS BY COUNTRIES.

United States.—The export trade with the United States shows an increase of 1,502,447 rupees, or over 45 per cent., and it will be seen that they far exceed that of any other western country and exceed the export to Great Britain by 2,868,020 rupees. The trade with the United States consists almost wholly of coffee, hides, and skins, with occasional shipments of gum, feathers, and ivory.

Great Britain.—Exports to Great Britain show an increase of 246,417 rupees, or 14½ per cent., and is entirely due to coffee and spices. Gum, hides, and skins show a decrease.

Exports to other European countries show an increase, mainly in coffee and gum.

India.—There is a decrease in the amount exported to Indian ports of 28,944 rupees, or 1¼ per cent., and all trade with these ports shows a falling off, the principal shipments from here being treasure. In the inland export trade there has been a marked increase of 323,012 rupees, or 43 per cent., mainly in animals of all kinds and cotton piece-goods.

IMPORTS AND EXPORTS BY ARTICLES.

The following table shows the quantity and value of the principal imports and exports for 1888–'89 as compared with 1887–'88:

IMPORTS.

Articles.	Quantity.		Declared value.	
	1887–'88.	1888–'89.	1887–'88.	1888–'89.
Animals:			*Rupees.*	*Rupees.*
Sheep and goats......number...	69,854	61,136	284,639	260,186
Cattle......do......	2,017	1,624	41,776	31,957
Coal......cwts...	144,224	196,521	3,067,643	4,972,972
Coffee, clean......do......	60,074	73,203	3,153,245	4,520,058
Cotton:				
Raw......do......	33	69	653	1,406
Twist......pounds...	1,569,076	2,527,054	702,275	1,158,065
Piece-goods......yards...	28,985,963	36,383,989	4,013,205	4,162,846
Do......pairs...	512,185	581,559	683,034	671,442
Do......number...	205,766	179,845	39,638	25,823
Do......cwts...	223	1,057	9,974	38,628
Feathers......pounds...	4,623	3,260	142,995	84,229
Fruits and nuts......cwts...	2,930	4,551½	45,791	61,555
Grain and pulse......do......	646,487	727,938½	2,813,697	3,112,688
Gums and resins......do......	40,578	50,572¾	1,169,994	1,834,739
Hides......number...	142,806	163,386	379,287	411,577
Do......cwts...	13,459	15,685		
Skins, raw......number...	2,198,883	2,357,617	1,386,893	1,594,940
Do......cwts...	28,416	28,438		
Ivory......pounds...	52,936	37,133	228,095	297,809
Liquors......gallons...	38,990	53,028	128,434	169,490
Metal:				
Wrought......cwts...	6,715	12,967½	97,935	148,280
Unwrought......do......	1,630	2,451	18,242	40,989
Provisions:				
Oil-man stores......do......	18,392	28,048½	550,366	631,457
Wet dates......do......	90,228	159,778½	385,553	675,029
Flour......do......	108,863	103,537	726,936	745,757
Seeds......do......	35,649	38,574½	257,435	291,173
Shells, mother-of-pearl......do......	8,147	5,221	343,927	246,721
Silk:				
Raw......pounds...	21,919	20,808	91,954	86,868
Piece-goods......yards...	182,935	197,046	193,290	239,189
Do......pairs...	4,557	9,643	34,018	44,029
Do......dozens...	1,047	1,797	8,865	15,591
Spices......cwts...	18,594	17,885	517,356	375,973
Sugar:				
Refined......do......	38,327	39,694½	503,239	512,801
Unrefined......do......	10,476	15,774	90,897	133,344
Tobacco, unmanufactured......pounds...	6,425,524	4,876,566	765,443	703,921
Treasure (private)......	......	......	2,067,169	2,059,335

EXPORTS.

Articles.	Quantity.		Declared value.	
	1887–'88.	1888–'89.	1887–'88.	1888–'89.
Coffee:			*Rupees.*	*Rupees.*
Clean ......cwts...	71,087	85,416¾	4,617,497	6,402,350
Berries ......do......	10,628	6,670½	235,534	211,374
Cotton:				
Raw ......do......	78	153¾	1,360	3,176
Twist ......pounds...	723,745	932,904	366,385	582,424
Piece-goods......yards...	22,958,324	38,058,010	3,124,362	4,700,722
Do......pieces...	318,584	186,866½	384,214	393,694
Do ......number...	49,057	17,721	8,094	7,179
Do......cwts...	73	647	3,263	29,217
Feathers......pounds...	4,300	4,151	33,040	21,164
Fruits, dry, and nuts......cwts...	1,137	1,579¼	17,013	25,181
Grain and pulse......do......	507,867	637,503¼	2,169,967	3,018,746
Gums and resins ......do......	45,855	50,189⅛	1,726,239	2,263,764
Hides, raw......number...	163,217	219,330	501,181	543,859
Do......cwts...	13,116	16,521¼		
Skins, raw ......number...	2,531,115	2,933,939	1,843,407	2,451,455
Do ......cwts...	31,550	37,558⅝		
Ivory ......pounds...	56,996	37,232	347,082	300,325
Metal:				
Wrought......cwts...	1,823	7,814⅛	31,014	89,342
Unwrought ......do......	2,023	1,152½	27,417	22,623
Provisions:				
Oil-man stores ......do......	13,307	13,958⅛	348,642	394,024
Dates, wet......do......	73,370	126,557½	312,187	510,697
Flour......do......	39,933	65,971⅛	263,983	455,222
Salt......do......	348,723	452,449¾	88,294	117,008
Seeds......do......	6,772	12,609	61,034	100,593
Shells, mother-of-pearl ......do......	8,613	6,597½	510,372	361,058
Silk:				
Raw......pounds...	18,647	15,610	62,087	59,106
Piece-goods ......yards...	75,134	113,411	83,861	115,001
Do......pieces...	3,651	7,851	19,336	26,329
Do......dozens...	666	1,076	5,932	10,320
Spices ......cwts...	9,778	12,242⅞	291,009	276,538
Sugar:				
Refined......cwts...	21,212	27,007	279,698	350,330
Unrefined......do......	4,759	9,573¼	44,385	84,666
Tobacco, unmanufactured......pounds...	3,673,285	3,839,934	434,137	581,713
Treasure......	......	......	1,628,240	1,957,608

SHIPPING.

The total number and tonnage of the vessels entering the port of Aden during the year under report, as compared with that of the year 1887–'88, is shown in the following table:

Description.	1887–'88.		1888–'89.	
	Number.	Tons.	Number.	Tons.
Steam	1,476	2,342,108	1,572	2,616,805
Sailing......	6	6,716	6	2,193
Country craft	1,347	46,598	1,423	53,161
Total......	2,829	2,395,422	3,001	2,672,159

This is an increase of 6½ per cent. in the number and 11¾ per cent. in the tonnage of merchant vessels that entered the port during the year.

Of the total number entering the port of Aden during the year, 38 per cent. called for coal, 4½ per cent. brought coal, 48¾ per cent. brought cargo, 2¼ per cent. called for provisions and water, 2 per cent. called for mails, 2¼ per cent. called for passengers, and the balance for stores, repairs, crews, bills of health, medical attendance, etc.

The following table shows the nationality of the vessels (exclusive of country crafts) which called at the port during the five years 1884–'85 to 1888–'89:

Nationality.	1884–'85.	1885–'86.	1886–'87.	1887–'88.	1888–'89.
British	856	954	898	936	1,029
British Indian	18	15	28	72	77
Austrian	53	52	68	77	62
American	1	....	....	....	1
Belgian	3	....	1	....	1
Danish	....	....	....	....	1
Dutch	52	29	33	33	48
French	164	187	154	135	127
German	38	45	67	66	69
Italian	54	64	89	81	77
Norwegian	6	9	10	14	15
Russian	12	7	14	11	12
Spanish	37	25	23	27	27
Swedish	....	4	....	....	....
Turkish and Egyptian	52	38	27	28	31
Arab	5	4	2	1	1
Other nations	6	2	....	1	....
Total	1,357	1,435	1,414	1,482	1,578

It is a matter of note that the American flag is represented in the shipping for the first time since 1884–'85.

DWIGHT MOORE,
Vice-Consul.

UNITED STATES CONSULATE,
Aden, December 18, 1889.

Navigation at Carthagena.—Under date of March 3, 1890, Consul MacMaster, of Carthagena, Republic of Colombia, reports that the dike (canal connecting Carthagena with the Magdalena River) has been navigable all this season. The American engineer now in charge of this work agrees to keep it permanently navigable after the arrival of the new plant lately bought in the United States. It is to be hoped he will, as the shoal water last year, followed by the sinking or laying up for repairs of all but one dike steamboat, have reduced the trade of this port until the revenues of this consulate do not pay running expenses.

COMMERCE AND INDUSTRIES OF THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

The year just closing has been a very remarkable one for the Argentine Republic. It has throughout presented two almost contradictory phases—one marking the development of the country beyond any thing heretofore known in its history, the other exhibiting it as in the throes of a financial crisis. This seems like a paradox, yet it quite accurately states the present situation.

PROGRESS OF THE COUNTRY.

The impulse which I referred to in my last annual report as characterizing the different departments of trade, industry, and commerce has been even more pronounced during the present year. There was never before so much push and movement; there was never before abroad in the land such a spirit of progress and speculation; there was never before such genuine and substantial development of the nation's resources. I expressed the hope that this wave of prosperity, which was watched with so much interest by the other nations of Christendom, would encounter no untoward obstruction in its onward course, and that the force of the new departure would bear the country along "in spite of the impediments of bad financial management and a persistent disregard of the laws of trade."

FINANCIAL TROUBLES.

I regret to say that that hope has hardly been realized. While the great mass of the people are sound to the core; while during the last year more new farms have been opened, more new estancias have been stocked and wired, more new railways have been finished or commenced, more new industries have been established, more new public works have been undertaken, and more new European capital has been invested here; while, in a word, the country was never so abounding in wealth, and immigration was never so great or so valuable, we reluctantly find the Argentine Republic struggling in the meshes of a financial crisis, the result of causes upon which it is not now necessary to comment. The solid basis on which the country seemed to rest might have safely withstood all this had it not been for the excessive overtrading, which, year after year, has distinguished the foreign commerce of the nation and left it with annually accumulating balances to pay, until it has drained the people and the banks of all their gold and left them with an irredeemable paper currency, which, now worth about 43 cents to the dollar, will not liquidate debts abroad, although in large quantities it will still pay for the necessaries of life at home.

THREATENED REVULSION.

Thus the Argentine Republic, with all its marvelous resources, with all its real, genuine wealth, with all the brilliant promises which accompanied it a year ago, is now laboring on the "ragged edge" of a financial crisis; and trade and industry, if not yet entirely paralyzed, are at least at a stand-still, waiting to see what way may be discovered out of the nation's embarrassments. The situation, in a business aspect, could hardly be more unpromising than it appears at the present time. Though the finances may be wrong, the country is all right. It is simply passing through one of those periodical revulsions which are not uncommon in all new countries, and which are the result of going too fast and trying to do too much at once. We have had them in the United States, and, although they seemed grievous at the time, they generally proved a benefit in clearing the financial atmosphere and bringing excessive speculation back again to hard pan and the stern rules of political economy. I think, beyond a doubt, that the present trials will have an equally purifying effect upon the finances of the Argentine Republic.

INTERNAL REPOSE.

Outside of all this, Argentine can point with great satisfaction to the advance which the country, during the last year, has been making in all the arts and activities of peace. Beyond any former experience, as I have said, the nation has enjoyed that political repose and quiet which are so conducive to its development and to the spread and extension of its industries. Except a slight émeute in Mendoza, which was at once arranged, there has been no disorder or attempted uprising against authority in any of the fourteen provinces. The people have industriously devoted their attention, not, as has too often been the case in former years, to the fomentation of intrigues and revolutions, but to "making money;" and their principal concern has been to be in the "boom" which was bearing the country onward to a wider horizon of prosperity.

FOREIGN RELATIONS.

So, also, the relations of the Argentine Republic with all the rest of the world have continued to be on the most satisfactory basis. The limits question with Bolivia has been provisionally arranged by a protocol, which fixes the dividing line along the twenty-fifth degree of south latitude to its intersection with the Rio Pilcomayo, and this line will, in all probability, be definitely agreed upon. The limits question with Chili has been referred to a joint mixed commission, which is at once to proceed to trace and mark the dividing ridges above the summit of the Andes to the southern extremity of Terra del Fuego. After considering the reports of the various commissions which have at different times surveyed the disputed limits between Brazil and the Argentine Republic, in the upper Missiones, it is now announced that the question has been submitted to the President of the United States for his decision, which is to be final in the matter. In reference to the Pan-American Congress, the President of the Argentine Republic, in his recent message to the National Congress, says:

> The Argentine Republic feels the liveliest interest in the subject and hopes that its commercial relations with the United States may find some practical solution of the question of the interchange of products between the two countries, considering that this is the most efficacious way of strengthening the ties which bind this country with that grand Republic, whose institutions serve us for a model.

INTERNAL DEVELOPMENT.

The Argentine Government, during the last year, has been paying special attention to the development of the several national territories, and surveys have been progressing, not only in the Gran Chaco and Formosa, but also in the far southern territories of the Rio Negro, Rio Santa Cruz, and Chubut. Surveys have now also been ordered in Terra del Fuego, and it is intended to divide all the public lands into such lots that they can be offered for sale with a view to their colonization and settlement.

Indeed, as I have already reported to the Department, in order to ease up the financial condition of the Government and acquire a fund wherewith to appreciate the present value of the currency, the President of the Republic recently issued a proclamation, offering for sale to European capitalists no less than 24,000 square leagues of land in these recently organized territories at a minimum of about $2 gold per hectare, or about $1.25 per acre. So soon as the surveys can be completed the lands are to be offered for sale by tender, and no tenders are to be received for less than 16 leagues. Besides this, the decree provides that the tracts in the different territories shall be colonized by at least three different nationalities.

There is already no inconsiderable movement of population into many portions of Patagonia, and it would be much greater if suitable inducements were offered. In the Chubut territory colonies are being formed in the fine table-lands under the Andes, while to the south of the Santa Cruz River there are now many extensive estancias and upwards of five hundred thousand sheep. It is not yet possible to determine accurately the actual amounts of land in the several territories which are still at the disposition of the General Government, but from the reports which have been published the following table has been compiled by the executive department as an approximate statement of the figures:

Lands belonging to the General Government.

Territories.	Square kilometers.	Territories.	Square kilometers.
Missiones	37,500	Chubut	239,531
Formosa	99,146	Santa Cruz	270,000
Chaco	61,964	Terra del Fuego	20,000
Pampa	63,791		
Neuquen	74,184	Total	1,056,474
Rio Negro	190,358		

Here are certainly lands enough and to spare for the destitute thousands who are seeking new homes in this portion of South America for many years to come.

IMMIGRATION.

That they are availing themselves, wherever they are able, of the opportunities offered for coming to the Argentine Republic, is evident from the increasing number of arrivals. The extent of this immigration will be seen from the following returns made to that department since the census of 1869:

Year.	Number.	Year.	Number.
1869	37,934	1880	41,648
1870	39,967	1881	31,817
1871	20,930	1882	51,503
1872	37,037	1883	63,242
1873	76,832	1884	103,109
1874	68,272	1885	108,722
1875	42,066	1886	93,116
1876	30,966	1887	142,786
1877	28,798	1888	180,993
1878	35,876	1889 (10 months)	226,715
1879	50,205		

About 45 per cent. of the immigrants arriving during the last year were from Italy, about 37 per cent. from Spain, and about 8 per cent. from France. The great majority of them are agriculturists, and at once pass from Buenos Ayres into the farming districts of the interior of this province or of Santa Fé.

Free passages.—What has added greatly to the wave of immigration towards this country during the present year has been the provision made by the Argentine Government for the payment of passages. Upwards of $2,500,000 have been expended in this manner. As might have been expected, however, the quality of the arrivals has decreased in an inverse ratio as the number increased. It was the signal for the promiscuous shipment of the halt, the lame, the diseased, and the destitute from the cities of the Mediterranean, a large number of them, as it appears, having been inmates of the poor-houses and hospitals. Never before have there been landed upon these shores so many, and such repulsive, professional beggars. So soon, however, as official attention was directed to the matter, a halt was at once called to the manner in which Argentine agents in Europe were construing their instructions. Such of these unfortunates as had not yet gotten on shore were sent back whence they came, with a fine to the vessels that brought them, and the order for the promiscuous paying of passages was countermanded.

Immigrants from Great Britain.—Among the immigrants during the present year were about twelve hundred from England and Ireland, who came in one lot, and nearly all of them in quite straightened circumstances. Being unable to speak the language and thus find opportunities for employment, they very soon became a charge upon their countrymen here in Buenos

Ayres, who finally succeeded in placing them in a colony by themselves, about 300 miles south, on the line of the Great Southern Railway, in an open country entirely wild and uncultivated. They have now succeeded in establishing themselves in wretched ranches, and, with good luck, they may finally succeed in their farming operations; but, when it is considered that they have bought their farms on credit from a rich landed proprietor at the rate of about $25 per acre, and that they are charged for all the advances of food and implements furnished to them, payments to be made in ten annual installments, it will be seen that they are weighted down with obligations much beyond what they will be able to meet, unless they should be favored with harvests far beyond what have thus far been known in that part of the country. Many of them whom I have conversed with heartily wish that they were back in Ireland.

No place for immigrants from the United States.—I may here state that, in the face of all that I have written and published, there has also been no inconsiderable number of arrivals here from the United States. They were induced to come here by the persistent advertising of the liberal inducements which the Argentine Government is offering to immigrants. Now, I may be permitted to repeat once more that the Argentine Government does not offer any pecuniary inducement whatever. It not only does not give land to new-comers, but it has made no provision for even selling it to them, in any accessible part of the country, in such tracts as the limited means of immigrants could purchase. Our own Government has had its public lands divided up into small tracts, and will sell the smallest subdivision of a section (640 acres) at a fixed rate per acre. Here in the Argentine Republic the public lands are sold at auction, by the square league or in lots of several square leagues, and it is only the moneyed men or speculators who can afford to bid them in. Of course, under these circumstances, those coming here from the United States are sure to be disappointed. Those who have been fortunate enough to bring a little money with them lose no time in returning, while those who come without money, in the expectation of making it here in unlimited quantities, are soon reduced to the most miserable straights, and have to depend on such assistance as the very limited number of Americans here can furnish to get back home again.

Except for capitalists who propose to engage in commercial pursuits or in the business of sheep or cattle farming upon a large scale, I must repeat that I do not consider the Argentine Republic as at all suitable for North Americans. Their ignorance of the language of the country, to say nothing of the difference in the customs of the people, at once and for long years places them at a disadvantage, no matter what occupation they might undertake, while it utterly unfits them for dependent or inferior positions. And even at the worst they can do much better at home than they can here. Far be it from me, however, to discourage immigration of the proper sort from the Argentine Republic. While I would forbear advising persons, and, much more, families, to come here from the United States, I would by all means advise the surplus population of Europe to try their fortunes in the river Plate. While this country offers no adequate inducements to Americans, it does offer very important advantages to those who are struggling for a stinted existence in the overcrowded countries of the Mediterranean.

The minister of foreign affairs has just issued a circular in which he states that he has made arrangements looking to the immigration of a number of families from Norway and Sweden, and, if they are properly located, he thinks it will be the means of diverting to this country many thousands more who otherwise will go to the United States.

AGRICULTURAL CONDITION OF THE COUNTRY.

The last year was rather an unfortunate one for the agricultural interests of the Argentine Republic. A larger breadth than ever before had been put down in crops, and the promise for a large yield of cereals was all that could be desired; but, just before the fields were ready for the harvest, a continuation of rain storms with high winds made a general havoc of the crops, excepting corn, throughout this and the province of Santa Fé. The business men were expecting that the wheat and maize exports would very materially help to equalize the balance of trade against the country, and there is no doubt but for this calamity that there would not be that general pressure in the gold market which to-day is so sensibly disturbing the foreign trade. As it is, the exports of cereals show a great falling off compared with some previous years. I give the figures of the more important articles for 1887, 1888, and nine months of 1889, as follows:

Exports of agricultural products.

Articles.	1887.	1888.	1889.
Linseed	$4,060,409	$2,131,813	$1,434,054
Indian corn	7,236,886	5,444,464	7,496,064
Pea-nuts	134,695	55,721	8,027
Wheat	9,514,635	8,248,614	973,705
All other agricultural exports	327,516	217,748	476,969
Total	21,268,141	16,298,360	10,388,819

So great was the deficiency in last year's wheat harvest that the people have recently been experiencing a shortage for home consumption, and there have lately been some importations to the river Plate from the United States and Russia.

The harvest of 1889, however, is just coming on, and though it will not be so great as was at one time expected, yet the prospect now is that the Argentine Republic will have more than any previous surplus for export.

That the agricultural industry of the Argentine Republic has undergone no inconsiderable development during the last few years is evident from the fact that when the last census of the country was taken, in 1875, the total amount of land under cultivation in the entire Republic was only 825,492 acres. In 1888, according to the figures published by the executive department, the amount was 2,359,958 hectares, equal to 5,899,895 acres. As a matter of no little interest, for purposes of reference, I give the following table of the amount of land cultivated and the nature of the crops in each province for the year 1888:

Amount of land in cultivation in 1888.

Province.	Corn.	Wheat.	Alfalfa.	Oats and barley.	Vines.	Sugar-cane.	Other crops.	Total.
	Hectares.	*Hectares.*	*Hectares.*	*Hectares.*	*Hectares.*	*Hectares.*	*Hectares.*	*Hectares.*
Buenos Ayres	481,176	225,500	82,909	17,630	2,889	....	58,554	868,658
Cordova	78,999	55,777	77,585	7,665	488	....	13,881	234,395
Entre Rios	47,208	67,319	6,307	2,242	705	....	12,370	136,151
Santa Fé	60,901	401,652	29,551	4,033	2,565	2,676	87,468	586,537
Jujuy	8,244	4,094	2,693	499	10	974	2,480	18,994
Catamarca	3,259	1,334	10,023	....	1,854	....	28,510	44,618
San Louis	9,066	3,552	5,989	420	69	....	773	19,809
San Juan	3,316	12,245	55,589	698	7,119	....	663	79,630
Salta	13,840	6,840	14,202	1,747	595	302	991	38,525
Mendoza	3,391	6,976	69,496	593	6,740	....	1,340	88,546
Tucuman	17,295	1,944	2,783	509	55	10,594	2,714	35,943
Corrientes	26,795	250	1,585	127	209	2,018	15,647	46,631
Rioja	9,021	6,030	4,697	24	1,684	2	759	22,217
Santiago	60,000	30,000	15,178	....	4,949	2,925	10,348	120,400
Territories:								
Formosa	232	....	....	....	....	189	219	640
Pampa	4,530	163	880	98	....	....	293	5,964
Rio Negro	327	317	207	368	1	....	72	1,291
Missiones	2,305	7	9	3	....	836	1,445	4,606
Chaco	2,696	41	133	3	....	537	213	3,623
Total	832,601	824,099	379,816	36,659	26,931	21,053	238,739	2,359,958

These 2,359,958 hectares of cultivated land stand for scarcely 1 per cent. of the total area of the country. The disproportion of these figures reveals the immense work which yet remains for European immigration to accomplish.

A comparison of the amount of land under cultivation in each province with its total area shows the close relation there is between railway facilities and agriculture. Thus, while the province of Buenos Ayres has a total area of 31,123,700 hectares, it has only 868,658 hectares in cultivation, less than 3 per cent.; while Santa Fé, with a total area of only 13,158,200 hectares, has 586,537 hectares in cultivation, or 4½ per cent., owing to superior railway intercommunication. The disproportion in the other provinces, owing to inaccessibility, is even greater.

RAILWAYS.

Railways, however, are rapidly extending themselves in nearly every part of the Argentine Republic. There was never before known such a push to obtain concessions or charters for new lines as has been the case during the last year, the National Government indiscriminately with the provincial governments being appealed to by the applicants. A year ago the Government expressed its determination to grant no more concessions which carried with them a guaranty on the part of the nation that if the enterprise did not pay a certain percentage the Government would make good the difference; but, during the recent session of Congress, several new lines were chartered with this provision.

The total length of all the railways in the Argentine Republic now amounts to 7,706 kilometers, an increase since the previous year of 958 kilometers. There are now in process of construction as follows:

Description.	Length.
By the Government:	*Kilometers.*
From Chambicha to Catamarca	65
From Dean Funés to Chilicito	415
From Chilcas to Jujuy	124
From Santa Rosa to Salta	64
By private parties with Government guaranty:	
Section of Northeast Argentine	809
Section of Transandean	192
Ñanducito to Tucuman	1,070
By the provincial governments:	
From Nueve de Julio to Trenque-Lanquen	183
From Riachuelo to the maritime station	7
By the provincial governments—Continued.	*Kilometers.*
From La Plata to Rio Santiago	8
From Gualeguay to Tala	109
From Nogoyá to Victoria	50
From Madrid to Tucuman	105
From Santa Fé provincial roads	444
By private companies, without guaranty:	
Cordova and Santa Fé	282
Cañada de Gomez and Las Yerbas	127
Cañada de Gomez and Pergamino	141
Sunchales and Tucuman	610
Total	4,790

During the year the railways of the country transported 8,373,500 passengers and 3,950,000 tons of cargo, against 7,173,500 passengers and 3,866,523 tons of cargo the previous year. The railways in operation have 602 locomotives, 912 coaches for passengers, and 14,324 freight-cars, and they represent a capital of $193,000,000.

During the year 1888 the National Government paid out of its treasury for guaranties to railways the sum of $3,000,000 in gold. The President, however, in view of the fact that some of the guarantied railway companies persistently neglect to keep their roads in proper condition and are without the necessary equipment to transact the business for which they were chartered, has just issued an order suspending the payment of any further guaranties until they conform to the law in these respects.

It is not deemed necessary here to give a list of the various railways which have recently been chartered, but which have not yet been "floated," or whose surveys have not yet been completed. Owing to the present financial condition of the country, the construction of some of these will probably be postponed for the present. For the same reason the National Congress, at its recent session, failed to act upon another large number of projected railways, but left them for future consideration.

PUBLIC WORKS.

During the last year the National Government has also been occupied in the construction of a number of important hydraulic works. I have already informed the Department of the opening of the first section of the Buenos

Ayres port works. In a short time another section will be ready to be inaugurated, and very considerable progress has been made upon the rest. These port works, which stretch out in front of the city, connecting with the channels of the Riachuelo port, will not only add very much to the river view of Buenos Ayres, but will be of such capacity as to receive the commerce of the country for all time to come.

Besides these works, the Government is engaged in improving the harbor of Rosario, the moles at San Nicolas, Corrientes, Concepcion, San Lorenzo, and Viedma, in the territory of the Rio Negro. It is also building a dike at Atalaya and works for protecting Santiago and Salta against rain freshets; likewise sinking artesian wells in San Luis, digging canals for irrigation purposes in Rioja, and diverting the waters of the Rio Dulce by cutting a new channel.

With a view to improving the Uruguay and Paraná rivers, which, in many places, are obstructed by sand banks, and also of deepening the channel of the La Plata at Martin Garcia, where a bar sets across the river and at low water quite impedes the passage of vessels, the department of engineers is now engaged in preliminary surveys, which will probably be submitted to the next Congress for its action. The bar at Martin Garcia especially needs attention, as at times upwards of a hundred sail of sea-going vessels are detained there for weeks waiting for water.

THE RIVER COMMERCE.

It is probably on account of the obstructions to navigation, which every year seem to be getting more serious, that the river commerce, which embraces the carrying trade of the La Plata, the Uruguay, and the Paraná rivers, does not exhibit a greater expansion. The following are the comparative figures for the last nine years:

Years.	Sailing vessels.	Steamers.	Tonnage of sailing vessels.	Tonnage of steamers.	Total tonnage.
1880	14,276	3,962	388,203	620,154	1,008,357
1881	16,878	5,848	518,192	1,280,043	1,798,235
1882	15,725	6,002	478,465	1,351,468	1,829,933
1883	16,411	6,031	517,700	1,545,658	2,063,358
1884	16,399	6,884	554,453	1,875,222	2,429,675
1885	18,011	8,113	675,261	2,276,851	2,952,112
1886	17,504	7,297	650,048	1,986,406	2,636,454
1887	18,701	6,124	749,921	1,485,091	2,235,012
1888	17,562	6,310	732,178	1,860,340	2,592,518

It will be observed that the average tonnage of the sailing vessels in the river trade last year was 40 tons, while that of the steamers was about 295 tons.

Movements of river trade.—While the river tonnage shows but little increase, however, the traffic on the rivers exhibits a very considerable expansion.

The following are the comparative figures for the last eight years:

Years.	Argentine products.	Imported merchandise.	Total.
1881	$7,856,311	$19,646,157	$27,502,468
1882	8,108,553	21,852,594	29,961,149
1883	11,255,997	25,394,370	36,650,347
1884	14,615,401	29,689,475	44,304,876
1885	17,556,491	31,382,385	48,938,876
1886	13,501,820	37,398,110	50,899,930
1887	29,897,927	43,924,556	73,821,583
1888	36,830,177	58,138,309	94,968,486

River transportation.—The following table gives the quantity and value of the most important articles transported by river steamers or sailing vessels:

Articles.		Quantity.	Value.
Bran	kilograms	5,429,109	$81,437
Alcohol	liters	2,570,732	308,488
Hemp shoes	dozens	26,628	47,519
Canary seed	kilograms	350,469	20,028
Sugar	do	5,527,263	718,546
Lime:			
Slacked	hectoliters	1,781,784	1,300,702
Unslacked	do	1,833,402	4,638,507
Charcoal	do	3,346,650	3,346,650
Timber beams	number	25,750	77,262
Brooms	dozens	13,624	28,619
Stakes	number	316,512	41,137
Macaroni	kilograms	10,016,739	2,003,347
Biscuits	do	1,020,324	91,829
Crackers	do	673,979	202,194
Flour	do	56,069,983	3,924,899
Soap	do	3,162,583	316,258
Linseed	do	4,711,089	235,544
Timber		....	488,234
Quebracho wood	square meters	799,898	319,959
Corn:			
In the ear	kilograms	837,996	8,380
Shelled	do	22,287,772	445,755
Split posts	number	1,807,281	542,184
Potatoes	kilograms	18,663,357	746,534
Beans	do	331,423	16,571
Posts	number	1,029,119	514,559
Cheese	kilograms	1,167,232	233,446
Sole-leathers	number	33,580	268,640
Tobacco	kilograms	261,320	26,132
Wheat	do	37,015,882	1,480,635
Paraguayan tea	do	646,179	80,772
Quebracho logs	number	1,777,000	26,661

MINES AND MINING.

In regard to mines and mining in the Argentine Republic, it is the same old story twice repeated. No one has yet discovered the bonanza. With all the outlay of capital and machinery which has been going on for the last ten years the returns are yet of the most meager description. According to a statement that has been officially recognized by the Government, the total product of the gold mines of the Republic for the year ending September 30, 1888, was as follows: Province of Jujuy, 100 kilograms; province of San Luis, 190 kilograms; province of Rioja, 40 kilograms; territory of Santa Cruz, 44 kilograms; territory of Terra del Fuego, 486 kilograms; total, 860 kilograms. The gold from Terra del Fuego was all taken from the neighborhood of San Sebastian Bay, on the east coast; and Mr. Julio Popper, who is the mining engineer in charge, is sanguine that a "big find" of the glittering dust will yet be made from the diggings along the Culler River or Carman Silva Mountains. The shipments of minerals from the country for the years 1888–'89 were as follows:

Articles.	1888.		Nine months of 1889.	
	Quantity.	Value.	Quantity.	Value.
	Kilograms.		*Kilograms.*	
Gold-dust	444,404	$75,549	188,490	$32,755
Bismuth	39,572	158,288	70,824	271,646
Copper in bars	115,770	46,308	39,890	11,956
Tin	342,801	171,705	304,506	152,250
Silver metal	11,970	110,700	25,840	258,400
Copper, mineral	348,659	82,665	147,295	45,200
Silver, mineral	370,498	183,238	135,799	63,399
Lead, mineral	124,628	9,970	96,147	11,444
Pure silver	18,352	679,024	14,810	547,970
Borax	110,000	6,600		
Gold metal			7	4,275
Total	1,926,654	1,526,057	1,196,139	1,399,295

I have nothing new in regard to coal or petroleum. As I said in my last annual report, companies have been organized for working the deposits of both articles, but I do not learn that any have yet come to the surface. When the duty on kerosene was raised to 5 cents per liter, which is more than the price of the article in the United States, the excuse for it was that it was to foster the home industry; but nothing has yet been done towards the establishment of that industry.

Coal still comes in free of duty, and last year the amount of English soft coal delivered here was 333,798 tons, valued at $3,337,985, and during the past nine months of the present year the amount received already reaches to 463,961 tons, valued at $4,573,210. If some "live Yankees" would come down here and set up in the coal-mining business, it would seem from appearances that there would be "millions in it." Of course, it would require a large capital, but, as all the railways and all the industries of the Argentine Republic are entirely dependent at present on foreign coal, it is hardly doubtful that a mine of the "black diamonds" would pay much larger dividends than the hundreds of companies which have been recently organized to exploit gold.

THE NATIONAL FORESTS.

The shipments of the cabinet woods of the Argentine Republic for 1888 amounted to $781,793, against $330,214 for the previous year. For the nine months ending September 30 of the present year the shipments have reached to $509,537. These exports went to France, Germany, and Great Britain for veneering and other fine work.

SALT DEPOSITS.

During the times of the Dictator Rosas the salt marshes of Bahia Blanca were worked to considerable advantage, and every year the market of Buenos Ayres was in great part supplied from that quarter. Of late years, however, the industry has been allowed to lapse, and nearly all the coarse salt used in the country has been sent from Cadiz. Last year a company with a large capital was organized, with a concession from the General Government, to make salt from the lagunas north of the Rio Negro, and the first installments are now just being received here. Three vessels have arrived with a consignment of about 12,000 sacks, and others have been chartered for additional cargoes. It is reported that the supply is abundant and the quality good. The industry will greatly assist in the development of the far south.

FISHERIES.

Another industry, which might be made a very important one if properly looked after, is the fisheries of the Argentine Republic. As I have stated in former reports, the rivers and entire South Atlantic coast abound in a great variety of fishes for food purposes; but, for want of enterprise, no advantage has ever been taken of this valuable possession. Several years ago the Government issued stringent proclamations against the catching of fish, seals, or whales in the waters of the nation without first obtaining a concession from the proper authorities; but nothing further has ever been done to promote the industry, which, under other circumstances, would add millions annually to the commerce of the country. Being proficient in the business, the minister of foreign affairs has suggested that the Norwegian and Swedish families which he is arranging to bring out here might with advantage be settled upon the eastern coasts of the Rio Negro territory. Meanwhile, I observe that several parties are asking exclusive privileges from the Government for the coasts in the neighborhood of Mar del Plata and Tres Arroyas, they undertaking to engage one hundred and fifty French and Spanish families who understand the business, and to provide vessels suitable for the purpose, with electric light and all other modern appliances. There is no reason in the world why the Argentine Republic, with the facilities of native salt all along its southern coasts and a sea in front which is literally alive with excellent fish, should depend upon Norway and Sweden for its supplies of salt fish. I shall say nothing of oysters in this connection, and yet, with this luscious bivalve in unlimited quantities all along its shores, there is not a single oyster-bed in the entire Republic.

THE RURAL INDUSTRY.

Of course, while all these minor industries are gradually seeking a home in the Argentine Republic, the great and important industry of the country continues to be the grazing of animals and the preparation of their product for market. It still overshadows all other occupations, and has more capital invested in it than all the rest combined. The first authoritative statement I have seen since the census of 1868 of the number of live stock in the Argentine Republic appears in the recent message of the President to the National Congress. As a matter of interest for future reference I transcribe his statistics, as follows:

Number of live stock in the Argentine Republic.

Province.	Cattle.	Horses.	Sheep.	Total value.
Buenos Ayres	9,692,274	1,855,429	55,397,881	$194,862,993
Cordova	2,110,514	403,879	2,355,030	27,868,717
Entre Rios	4,120,068	719,510	4,901,123	54,308,444
Santa Fé	2,328,343	528,536	2,977,382	31,978,791
Jujuy	89,855	22,896	617,803	2,008,422
Catamarca	239,834	56,054	152,438	3,075,429
San Luis	478,904	113,554	241,827	6,060,212
Salta	164,944	34,174	164,414	2,169,453
San Juan	54,539	25,848	62,672	846,182
Santiago	588,396	110,368	781,951	7,939,830
Rioja	160,169	24,998	57,926	1,888,563
Corrientes	1,841,459	268,696	611,085	21,480,785
Tucuman	168,835	42,939	43,390	2,396,947
Mendoza	180,009	44,849	122,298	2,343,329
Territories:				
Formosa	14,403	691	143	149,772
Pampa	469,787	110,104	1,670,393	8,084,291
Rio Negro	77,434	16,620	287,940	1,339,210
Missiones	41,967	17,541	4,218	566,325
Chaco	17,551	1,597	1,751	193,912
Total	22,869,385	4,398,283	70,453,665	369,561,607

WOOL AND SHEEP.

These figures, especially for sheep, are much below the estimates which have lately been made for the Argentine Republic. We have, indeed, been given to understand that the number of sheep in the country now amounts to a hundred millions. The present figures, however, are not as large as those stated by Mr. Mulhall five years ago in his "Hand-book of the River Plate." I can well understand, however, why there has been no perceptible increase, since the mortality among the flocks, not only from epidemia and foot-rot, but from exposure to cold and wet weather, has in the last few years been greatly on the increase. The best index to the condition of the sheep industry is found in the tables of exports.

The exports for the last nine years were as follows:

Exports of wool and sheep-skins.

Years.	Wool.		Sheep-skins.	
	Quantity.	Value.	Quantity.	Value.
	Tons.		*Tons.*	
1881	103,876	$31,446,495	32,359	$4,639,437
1882	111,009	29,978,960	20,353	4,231,718
1883	118,403	29,600,918	26,564	5,035,886
1884	114,344	32,005,819	24,938	5,484,952
1885	128,393	35,950,111	31,336	6,267,377
1886	132,130	31,711,604	35,312	6,350,731
1887	109,164	52,749,315	30,447	6,698,408
1888	131,743	44,858,606	28,054	5,610,923
1889 (9 months)	126,806	48,820,510	18,185	5,440,622

It will thus be seen that the increase in the shipments, if it can be called an increase, is not of sufficient importance to be entitled to consideration. If there is likewise some increase in the official value of the wool, it is only an apparent increase, owing to the fact that it is now stated in Argentine currency instead of gold.

Wool exports.—The following table shows the countries to which the sheep-skins and wool clip of 1888 were shipped:

Countries.	Wool, unwashed.		Sheep-skins.	
	Quantity.	Value.	Quantity.	Value.
	Kilograms.		*Kilograms.*	
Germany	30,335,537	$10,328,569	1,745,907	$349,181
Belgium	31,044,581	10,570,680	1,086,349	217,[illegible]
Brazil	152,437	51,905	10,640	2,128
United States	2,332,467	794,205	15,053	3,011
France	57,927,161	19,724,198	19,831,471	3,966,294
Italy	1,461,392	497,604	1,934,865	386,973
Great Britain	3,190,977	1,086,528	2,290,750	458,150
Uruguay	330,590	112,566	483,442	96,688
Destination unknown	4,970,197	1,692,266	656,139	131,228
Total	131,743,339	44,858,606	28,054,616	5,610,923

It will be borne in mind that this wool was all shipped in the dirt—one-third being wool and two-thirds of it being dirt; so that, when figured down to hard pan, the product of the Argentine Republic for 1888, with its 70,000,000 of sheep, was only 98,807,505 pounds of washed wool, a much smaller amount than this country has hitherto been receiving credit for. Indeed, as a wool-producing country, these figures place the Argentine Republic below the United States; since, according to our census of 1880, our product of washed wool from 40,000,000 of sheep was 155,681,951 pounds. In other words, while the Argentine sheep yield an average of 1½ pounds of clear wool to the fleece those of the United States yield almost 4 pounds to the fleece.

The wool shipped to the United States, as given in the foregoing table, was exclusively the Cordova carpet wool, it being the only class that it is possible to send to our market at a profit under our present tariff laws.

OUR WOOL TARIFF.

In the discussion of the question of fostering our commerce with South American countries, it is very generally argued that if we could only repeal our tariff on wools it would be the prelude to an "immense expansion" of our trade with the Argentine Republic. While it is not my province, and certainly it is not my intention, to discuss such a question as this, I may be at liberty to say that in such a case, with Australian wools, which are cleaner and hence less expensive, to come into direct competition with those of the river Plate, it would not necessarily follow that the advantage thus gained would be entirely, if at all, in favor of the Argentine Republic. England might, after all, reap the benefit which was intended for this country.

Neither, on economic principles, does it necessarily follow that the only method by which our imports to the Argentine Republic can be increased is by our agreeing to receive its wools free of duty. If the trade of Great Britain with the Argentine Republic be analyzed, it will be seen that while the United Kingdom furnishes over one-third of the entire imports to this country, it does not, in order to assist in the expansion of this trade, buy Argentine wools at all, and this notwithstanding the fact that they are admitted free of duty. To be more exact, of the $128,412,110 of merchandise imported into the Argentine Republic during 1888 the amount of $44,044,110 was furnished by Great Britain, and of the 296,422,512 pounds of unwashed wool exported from the Argentine Republic in 1888 only 7,179,698 pounds was shipped to Great Britain. In other words, the Argentines buy their imports from Great Britain in spite of the fact that Great Britain buys scarcely a pound of Argentine wool in return. Why is this? It is simply because the English buy their raw materials where they can buy them to the best advantage, and the Argentines buy their imports where they can procure them either cheapest or with the least delay. And, whether we buy Argentine wool or not, I venture to say that we will secure our full share of the Argentine imports just so soon as we shall have—what the English already have—regular and quick steam transportation with the river Plate and the necessary banking and other facilities for doing business.

CATTLE INTERESTS.

The horned cattle or "saladero" industry of the Argentine Republic, which has been greatly depressed for several years, owing to the slackened demand for jerked beef in Brazil and Cuba, has somewhat revived lately, and the estancieros, who have been at a loss what to do with their cattle, are now somewhat encouraged at the outlook. The following is a comparative table of the value of the principal exports of the killing establishments for the last four years:

Articles.	1885.	1886.	1887.	1888.
Dry hides	$7,511,919	$6,267,592	$8,408,742	$10,046,281
Salted hides	4,488,204	3,649,287	3,639,095	4,584,728
Jerked beef	4,204,077	3,738,820	2,398,424	3,456,787
Bones and bone-ash	782,464	583,055	396,635	919,855
Hide cuttings	80,485	74,468	70,844	98,439
Horns	159,896	149,431	182,026	229,666
Tallow	3,489,139	1,715,158	788,777	2,140,393
Extract of beef	56,548	169,991	75,888	128,080
Total	20,716,214	16,177,811	15,690,431	21,604,229

The total number of ox and cow hides, salted and dried, which were shipped during 1888 was 3,406,620, of which 1,153,587 were sent to the United States. The amount of jerked beef shipped during 1888 was 2,649,055 kilograms, of which about two-thirds went to Brazil and Cuba, the balance in great part going to Spain. The tallow, amounting to 26,449,055 kilograms, went to Spain, Italy, and England.

EXPORTS OF FRESH MEAT.

The shipments of fresh meat have received quite an increased impulse during the past year in the bounty which the Argentine Government now offers to exporters. I have already referred to this in a report* which I recently made to the Department. The law provides that a guaranty of 5 per cent. for ten years will be paid on the capital of companies formed for the purpose of exporting fresh meats, the total amount of capital on which such bounty will be paid being limited to $8,000,000 currency and no larger amount than $1,000,000 to any one company. Quite a number of new establishments have commenced operations under the law, while the old establishments have all taken advantage of its provisions. The following is a comparative statement of the shipment of the frozen carcasses, etc., during the last four years:

Year.	Quantity.	Value.
	Kilograms.	
1885	2,860,270	$75,323
1886	7,350,671	360,508
1887	12,038,889	963,112
1888	18,727,282	1,498,182

Heretofore there was scarcely any margin for profits on these frozen meat shipments, but now, with a 5 per cent. guaranty from the Government, the business will probably find a greatly increased development.

Some few bullocks on the hoof, during the present year, have been exported to France with a view to testing the question whether live animals can be shipped for European consumption under such conditions as will make the business profitable. I do not think the ventures have thus far proved entirely successful, though it is reported that the cattle lost only 10 per cent. in weight on the passage.

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* Printed in No. 104 of CONSULAR REPORTS.

The best and most reliable markets the Argentines yet have for their live stock are Chili, Bolivia, and Uruguay. Over 62,000 bullocks were driven across the Andes to Chili during 1888, while 16,000 went to the Liebig Meat Extract Factory, at Fray Bentos, in Uruguay. About 22,000 sheep went to Bolivia and Chili. The total value of the exports of horses, mules, sheep, and horned cattle to the neighboring republics was $2,039,149, against $1,612,347 in 1887.

ARGENTINE TRANSIT TRADE.

The transit trade of the Argentine Republic for the year 1889, that is, of merchandise which passed through this country for other destinations, was as follows:

Countries.	Ingress.	Egress.	Total.
Bolivia	$5,487,835	$515,588	$6,003,423
Brazil	12,308	127,738	140,046
Paraguay	34,131	724,134	758,265
Uruguay	22,157	474,030	500,787
Total	5,557,031	1,805,490	7,402,521

The Bolivian transit trade is transacted through the custom-house at Rosario, and consists in the ingress of minerals and metals destined to Europe and in the egress from here of European merchandise destined for consumption in Bolivia.

The Brazilian transit trade is effected through the custom-houses at Concordia and Monte Caseros. The Paraguayan and Uruguayan transit trades, consisting principally of general merchandise, are almost entirely effected in the port of Buenos Ayres by means of transshipments.

During the war between Chili and Bolivia the transit trade with Bolivia assumed very considerable proportions, but in the last year or two it shows a marked reduction, owing, in great part, to the difficulty in procuring transportation by rail to Tucuman. With better facilities and greater promptness in the delivery of goods it could be greatly increased. The Argentine Government is now engaged in placing a line of steamers upon the Vermejo River of such light draft that they will probably be able to navigate that river from its mouth, just below Asuncion, almost to the confines of Bolivia. The steamers are flat-bottomed stern-wheelers, very similar to those which navigate the Illinois and upper Mississippi rivers, built in England but put up here.

FOREIGN NAVIGATION OF THE ARGENTINE REPUBLIC.

The carrying trade of the Argentine Republic with other nations for the year 1888 shows a considerable increase in tonnage over the figures of the previous year. From the report of the national statistical office I compile the following returns:

Class of vessels.	Arrivals.		Departures.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Sailing vessels	7,558	1,192,852	5,212	1,001,937	12,770	2,194,989
Steamers	5,935	3,692,925	5,598	3,317,502	11,533	7,010,427
Total in 1888	13,493	4,885,777	10,810	4,319,439	24,303	9,205,216
Total in 1887	12,301	4,471,601	9,524	3,723,969	21,725	8,195,570
Increase	1,192	414,176	1,286	585,470	2,578	1,009,646

In 1878 the total foreign steam tonnage which entered Argentine ports was 616,409 tons; in 1888 it amounted to 3,692,925. In 1878 the total tonnage of sailing vessels which entered Argentine ports from abroad was 280,223 tons; in 1888 it amounted to 1,192,852.

The following tables show the arrivals and departures of both sailing vessels and steamers:

Arrivals and departures at each port.

Ports.	Arrivals.				Departures.			
	Sailing vessels.		Steamers.		Sailing vessels.		Steamers.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Bella Vista			234	89,346			237	90,826
Bahia Blanca	15	7,508			16	8,327		
Buenos Ayres	3,600	719,250	1,638	1,508,974	1,631	547,770	1,548	1,320,026
Campaña	75	9,425			85	13,743		
Colon	122	5,554	430	230,195	89	4,566	425	241,107
Concepcion	105	2,911	221	134,165	90	3,454	219	102,247
Concordia	245	11,012	487	263,920	256	13,100	447	253,531
Esquiña			193	78,576			189	77,269
Gualeguay	24	2,616			28	3,774		
Goya			171	70,734			161	73,015
Gualeguachú	73	4,737	402	130,263	80	10,819	404	131,717
Formosa			216	84,865			219	85,286
La Paz	3	643	222	88,310	9	1,454	235	86,638
La Plata	2,355	217,414	369	12,488	2,165	187,510	368	12,551
Monte Caseros	57	471	61	4,524	26	336	39	3,998
Paraná	19	2,391	227	86,519	24	2,501	206	86,310
Posadas	89	603			82	619		
Rosario	419	146,504	664	574,359	279	111,330	550	456,368
San Nicolas	63	40,335	115	180,894	67	41,948	113	187,763
Santa Fé	64	14,694	26	41,249	31	14,191	9	9,736
Zaraté	12	3,182	3	3,587	13	5,245	12	15,002
Other ports	220	40,335	256	109,957	241	31,250	217	84,120
Total	7,558	1,192,852	5,935	3,692,925	5,212	1,001,937	5,598	3,317,502

Arrivals from and departures to each country.

To and from—	Arrivals.				Departures.			
	Sailing vessels.		Steamers.		Sailing vessels.		Steamers.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Germany	50	25,892	148	236,204	11	9,221	149	221,479
Africa					1	177	3	3,581
West Indies	1	336			310	170,058		
Austria	2	473						
Belgium	36	17,524	116	170,581	14	6,434	121	177,240
Brazil	166	21,701	180	37,295	225	73,267	194	64,427
Canada	29	29,891			6	3,866		
Chili					26	16,739	3	4,385
Denmark					1	282		
Spain	52	27,958	26	27,460	23	11,110	21	29,806
United States	339	213,374	1	897	311	201,855	14	19,702
France	88	47,953	179	356,930	32	20,191	221	464,052
East Indies	7	7,595			1	397		
Italy	18	7,093	141	269,378	7	2,629	89	157,234
Mexico					3	1,605		
Norway	6	3,335			1	268		
Paraguay	284	15,831	1,300	584,449	207	13,802	1,391	534,488
Peru			1	250	1	611		
Portugal					7	2,709	1	1,704
Great Britain	713	354,286	455	675,300	330	170,349	264	393,644
Sweden	3	1,227						
Uruguay	5,741	423,046	3,388	1,334,181	3,641	268,472	3,127	1,245,760
Venezuela					1	644		
Not named	24	11,337			53	27,253		
Total	7,558	1,192,852	5,935	3,692,925	5,212	1,001,937	5,598	3,317,502

Arrivals and departures according to flag.

Flag.	Arrivals.				Departures.			
	Sailing vessels.		Steamers.		Sailing vessels.		Steamers.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
German	111	46,002	148	238,192	110	52,215	158	232,718
Austrian	71	36,985			62	31,290		
Belgian			17	24,376			14	21,282
Brazilian	36	2,921	168	38,734	24	1,596	147	35,503
Danish	15	4,022			6	6,439		
Spanish	60	16,322	37	39,951	64	16,886	26	40,869
French	22	10,896	266	419,538	13	7,896	273	452,158
Dutch	15	4,619			8	2,361		
English	463	226,076	2,252	1,843,551	337	208,941	2,132	1,563,563
Italian	261	124,658	123	216,314	259	116,889	94	164,616
Argentine	4,267	305,791	2,657	827,264	2,710	189,312	2,468	750,904
United States	85	53,017			67	42,305		
Norwegian	449	231,482			481	243,391		
Paraguayan	127	7,335	20	2,891	95	5,872	63	14,758
Russian	14	6,540			11	5,521		
Swedish	63	24,773	2	548	47	20,579	1	15
Uruguayan	1,494	90,841	254	40,667	903	48,948	219	30,783
Not named	5	572	1	899	5	1,496	3	1,333
Total	7,558	1,192,852	5,935	3,692,295	5,212	1,001,937	5,598	3,317,502

As I have heretofore mentioned in my reports, the Argentine returns of navigation would seem to be inaccurate or incomplete; otherwise it is impossible to explain the very large difference between arrivals and departures. They are furnished, however, by the national statistical office, and there is no way of verifying them or solving the problem of the inequality in the figures.

INTERNATIONAL RIVER TRADE.

It will be furthermore observed that a large amount of the tonnage given in the foregoing tables does not represent ocean commerce, but it is of vessels under the Argentine, Uruguayan, Paraguayan, and Brazilian flags which are not engaged in maritime navigation but are exclusively employed in trading along the La Plata, Paraná, Uruguay, and Paraguay rivers between the different ports of the Argentine Republic and those on the opposite shores belonging to Uruguay, Paraguay, and the upper provinces of Brazil. The actual ocean navigation of the Argentine Republic is formed by deducting all this international river tonnage from the totals given in the tables, as follows:

Commerce.	Arrivals.				Departures.			
	Sailing vessels.		Steamers.		Sailing vessels.		Steamers.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
International river trade	5,924	406,888	3,099	909,456	3,732	245,728	2,897	840,948
International ocean trade	1,634	785,964	2,836	2,783,469	1,480	756,209	3,038	2,851,977
Total	7,558	1,192,852	5,935	2,792,925	5,212	1,001,937	5,935	3,692,925

It will be seen from these figures that the average size of the sailing vessels engaged in the international river trade was about 70 tons, while that of the steamers was not quite 300 tons; also, that the average size of the sailing vessels engaged in the foreign ocean trade was 495 tons, while that of the steamers was 950 tons.

NATIONALITY OF VESSELS IN THE AMERICAN TRADE.

The same old story in regard to American steam-ships with the river Plate is once more repeated. The above returns show that during the year 1888 not a single merchant steamer bearing the flag of the United States arrived in these waters. It appears that there was one steamer from the United States, but it was a "tramp" steamer under the British flag. It also appears that fourteen steamers sailed from the Argentine Republic for the United States. I think they all belonged to the Lamport & Holt line, which for some time has had a service of steamers from here once a month for New York, returning to the river Plate, however, by way of Liverpool.

Of the sailing vessels which arrived from the United States, it appears that 30 sailed from Boston, 19 from Brunswick, 7 from Fernandina, 1 from

Philadelphia, 3 from Mobile, 56 from New York, 52 from Pensacola, 39 from Portland, 1 from San Francisco, 3 from Savannah, 4 from Wilmington, and 124 from places not specified; total, 339 vessels. Of these vessels 76 carried the United States flag, 121 the British, 86 the Norwegian and Swedish, 16 the Italian, 16 the German, and 24 other flags.

Of the sailing vessels which cleared from the Argentine Republic for the United States, 2 sailed for Fernandina, 8 for Philadelphia, 4 for Mobile, 30 for New York, 122 for Pensacola, 6 for Portland, 20 for Savannah, 6 for Wilmington, and 67 for ports not named. All these, however, sailed in ballast, except those which cleared for Boston, New York, and Philadelphia, and 37 of those which cleared for ports not named.

Our small share.—The very small share which the United States continues to have in the carrying trade with this country will be understood from the fact that out of 339 vessels which arrived here from our different home ports only 76 carried the American flag, there being 9 other arrivals from other countries to make up the total of 85 American vessels which entered here during 1888. I am gratified to be able to say, however, that thus far during the present year 116 vessels carrying the American flag have entered at this consulate, and that 83 have entered at the Rosario consulate; total, 199 vessels, with a total tonnage of 120,856 tons, which shows a large increase over the previous year.

FOREIGN COMMERCE OF THE ARGENTINE REPUBLIC.

The foreign commerce of the Argentine Republic for the year 1888 amounted to $228,524,013, the imports being $128,412,110 and the exports $100,111,903. The imports were $11,059,985 and the exports $15,690,083 greater than the figures for the previous year. While for 1887 the imports exceeded the exports by $32,930,305, for 1888 the excess was $28,300,207. For the sake of convenient comparison I give the returns of the foreign trade of this country for the last ten years, to wit:

Year.	Imports.	Exports.	Total trade.
1879	$46,363,590	$49,357,558	$95,721,150
1880	45,535,880	58,380,787	103,916,667
1881	55,755,927	57,938,272	113,644,199
1882	61,246,045	60,388,939	121,634,984
1883	80,435,828	60,207,976	140,643,804
1884	94,056,144	68,029,836	162,085,980
1885	92,221,969	83,879,100	176,101,059
1886	95,408,745	69,834,841	165,243,586
1887	117,352,125	84,421,820	201,773,945
1888	128,412,110	100,111,903	228,524,013

The exports of 1888 are evidently estimated, not in gold, but in the paper currency of the country, and which, reduced to a gold basis, would put the amount at about $80,000,000. It will be seen that, while there is no corresponding increase in the exports, the amount of the imports for the last ten years shows a most wonderful expansion, the balance of trade against the country every year growing larger and larger.

Imports and exports by custom-houses.—From the returns published by the national statistical office I have compiled the following table, showing the imports and exports of each custom-house in the country:

Imports and exports of each custom-house.

Custom-house.	Imports.	Exports.	Total.
Ajó	$5,515	$295,483	$300,998
Alvear	17,917	5,091	23,008
Baradero	28,676	442,117	470,793
Bahia Blanca	186,380	2,186,831	2,233,211
Bella Vista	42,841	46,805	89,646
Buenos Ayres	93,998,944	63,312,292	160,311,236
Campaña	1,234,576	1,184,966	2,419,542
Colon	56,231	709,996	766,227
Concepcion	81,561	143,634	225,195
Concordia	400,904	2,107,569	2,508,473
Corrientes	228,675	8,929	337,604
Diamente	13,160	335,375	348,335
Empedrado	6,354	6,574	12,928
Esquina	18,650	....	18,650
Formosa	13,963	3,701	17,644
Goya	40,209	5,838	46,047
Gualeguay	51,174	590,846	642,020
Gualeguachú	202,622	1,062,266	1,264,888
Helvecia	....	216,322	216,322
Jujuy	39,485	124,897	164,382
La Cruz	....	14,199	14,199
La Paz	48,881	139,250	188,131
La Plata	2,002,091	266,805	2,268,896
Mar del Plata	....	87,678	87,678
Mendoza	47,835	464,250	512,085
Monte Caseros	56,353	135,619	191,972
Paraná	1,297,679	135,436	1,433,115
Paso de los Libres	13,249	51,822	65,071
Rosario	23,918,788	14,012,123	37,930,911
Salta	124,898	122,801	247,699
Santa Fé	2,902,197	1,355,282	4,257,479
San Juan	....	518,766	518,766
San Lorenzo	....	749,816	749,816
San Nicolas	1,132,304	4,037,155	5,169,459
San Pedro	3,705	1,212,645	1,216,350
San Tomé	39,741	....	39,741
Trinchera	38,260	50,400	88,660
Victoria	23,828	....	23,828
Zaraté	94,463	968,324	1,062,787
Total	128,412,110	100,111,903	228,524,013

From this table it will be seen that Buenos Ayres for 1888 had 70.3 per cent. of the imports, 63.2 per cent. of the exports, and 70.1 per cent. of the entire foreign trade; and that Rosario, the next most important port in the Argentine Republic, had 18.6 per cent. of the imports, 13.9 per cent. of the exports, and 16.5 per cent. of the total trade. The other custom-houses of the country continue to be of but little significance.

Argentine trade according to nationality.—The following table, also compiled from official sources, gives the countries among which the foreign trade of the Argentine Republic was distributed and the share of each one therein:

Country.	Imports.	Exports.	Total.
South Africa	....	$11,061	$11,061
Germany	$13,310,094	13,309,546	26,619,640
West Indies	2,212	1,246,716	1,248,928
Austria	9,066	....	9,066
Belgium	11,084,482	16,679,944	27,764,426
Bolivia	53,359	247,365	300,724
Brazil	2,377,734	2,460,451	4,838,185
Chili	29,959	1,682,011	1,711,970
Spain	3,913,811	3,313,864	7,227,675
United States	9,909,895	6,665,520	16,575,415
France	22,966,857	27,973,561	50,940,418
Italy	7,764,023	2,742,960	10,506,983
Holland	276,815	....	276,815
Paraguay	1,762,411	384,373	2,146,784
Portugal	59,670	136,271	195,941
Great Britain	44,044,851	17,061,411	61,106,262
Sweden	84,308	....	84,308
Uruguay	5,433,001	2,681,283	8,124,284
Countries not given	5,319,562	3,515,566	8,835,128
Total	128,412,110	100,111,903	228,524,013

From the above table it will be seen that in the amount of imports Great Britain continues to occupy the first place, her share in 1887 being 34.2 per cent. of the whole amount. France continues to stand next, her importations being 17.8 per cent., the next in order being Germany with 10.3 per cent., Belgium with 8.9 per cent., and the United States occupying the fifth place with 7.8 per cent.

In the amount of exports France still occupies the first place, the shipments from the Argentine Republic to that country being 27.9 per cent., while Great Britain stands for 17 per cent., Belgium for 16.6 per cent., Germany for 10.3 per cent., and the United States for 6.6 per cent.

Of the total commerce of the Argentine Republic for 1888 Great Britain occupied the first place, her share standing for 26.8 per cent. of the whole, France coming next for 22.3 per cent., Belgium third for 12.1 per cent., Germany fourth for 11.6 per cent., and the United States fifth for 7.2 per cent.

Comparison of 1888 with 1887.—Comparing the returns of trade for 1888 with those of 1887, it appears that the imports to the Argentine Republic have increased from the following countries:

Country.	Increase.	Country.	Increase.
Germany	$1,201,640	Italy	$726,282
Austria	9,066	Paraguay	454,488
Belgium	136,527	Great Britain	9,265,644
Chili	13,764	Sweden	53,809
France	223,307		

And they have diminished from the following countries:

Country.	Decrease.	Country.	Decrease.
West Indies	$3,730	United States	$1,094,658
Bolivia	7,437	Holland	155,313
Brazil	140,209	Portugal	2,113
Spain	1,091,888	Uruguay	1,074,933
Canada	71,142		

The exports from the Argentine Republic for 1888 have increased to the following countries:

Country.	Increase.	Country.	Increase.
Germany	$3,463,792	Spain	$1,992,461
West Indies	463,420	United States	1,626,712
Belgium	4,568,413	France	3,102,207
Bolivia	56,075	Portugal	121,754
Brazil	519,339	Uruguay	321,278
Chili	531,435		

And they have decreased from the following countries:

Country.	Decrease.	Country.	Decrease.
South Africa	$790	Paraguay	$39,422
Italy	364,153	Great Britain	23,590
Holland	13,250		

In the total amount of trade the following countries show an increase:

Country.	Increase.	Country.	Increase.
Germany	$4,675,430	Spain	$900,773
West Indies	459,690	France	3,325,514
Austria	9,066	Italy	362,129
Belgium	4,704,940	Paraguay	415,066
Bolivia	48,638	Portugal	119,641
Brazil	479,130	Great Britain	9,245,042
Chili	545,199	Sweden	53,809

And the following countries show a decrease in their trade:

Country.	Decrease.	Country.	Decrease.
South Africa	$790	Holland	$168,563
Canada	71,142	Uruguay	743,655
United States	367,946		

INACCURACY OF ARGENTINE STATISTICS.

All the foregoing figures are either taken or compiled from the custom-house returns made to the national statistical office, but they are not accurate. Indeed, in regard to some countries they are very unjust. In nearly all cases the nation from which the merchandise is finally embarked for the river Plate gets the credit of the shipment, and in other cases the flag under which the transporting vessel sails fixes, in the books of the Argentine custom-house, the country from which the goods have been imported. The director of the statistical office refers to this as follows:

> I must repeat what I have alluded to in former years, that in respect to imported merchandise it is impossible to make our statistics agree with those of the exporting countries. Being ignorant of what 'territorial' transit the merchandise may have made before arriving at its port of ultimate shipment, our custom-houses enter it as coming from its last port of departure. I may mention, for instance, the case of Switzerland, with which country we know that we have no inconsiderable commerce. But our custom-houses only knowing that merchandise from Switzerland is ultimately shipped by steamer from Bordeaux or Havre or Marseilles, it is entered as French merchandise. For this reason Switzerland does not figure in our statistics at all, France getting the credit of all her importations. The same is the case with Norway and Sweden, all of whose importations figure as coming from Germany or Great Britain or France; and generally, whenever steam-ships from the latter countries have completed or received their cargoes at the ports of other countries, their cargoes are all classified in our custom-houses as coming from the home port of departure of the importing vessel.

What the director here says in regard to Switzerland, Norway, and Sweden is especially true in regard to the United States. In the absence of any direct line of steam-ships from the United States to the river Plate there are large amounts of valuable merchandise shipped from New York to the Argentine Republic in the steamers of the German Loyd's line via Antwerp or Bremen, and in the steamers of the Lamport & Holt line via Liverpool. In the former case the importations are entered here as coming from Germany and in the latter case as coming from Great Britain. So that the foregoing figures do not show, by many millions of dollars, the correct amount of shipments from the United States.

DETAILS OF THE IMPORT AND EXPORT TRADE.

In the following tables, which I have compiled from official sources, will be found the amount and custom-house valuation of all articles imported into or exported from the Argentine Republic during the year 1888:

Table showing imports into the Argentine Republic during 1888.

Articles.	Quantity.	Official value.
Live stock:		
Asses .... number...	9	$1,010
Horses .... do......	990	86,985
Hogs .... do......	22	690
Sheep .... do......	3,351	51,245
Mules .... do......	57	1,900
Horned cattle .... do......	4,527	93,145
Total	....	234,975
Groceries and comestibles:		
Olive-oil .... kilograms...	4,898,097	1,567,379
Olives .... do......	607,279	99,591
Starch .... do......	847,454	149,352
Rice .... do......	13,593,796	2,291,418

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Groceries and comestibles—Continued.		
Saffron ... kilograms	3,846	$53,844
Sugar—		
Refined ... do	18,637,650	3,541,152
Other kinds ... do	764,903	99,440
Cod-fish ... do	1,036,223	176,973
Cocoa ... do	145,885	36,471
Coffee ... do	3,175,349	918,920
Cinnamon ... do	44,036	14,756
Meat preparations ... do	194,464	119,241
Barley ... do	1,418,126	45,844
Chocolate ... do	173,822	173,822
Coca ... do	44,286	31,000
Confectionery and dulces ... do	294,587	172,030
Spices and condiments ... do	1,289,212	422,726
Farina ... do	1,536,619	76,831
Fecula ... do	210,421	23,837
Macaroni ... do	114,478	21,299
Fruit—		
Fresh ...	...	54,900
Dried ... kilograms	1,853,082	324,244
Flour—		
Wheat ... do	12,062	965
Other kinds ... do	85,386	15,124
Hams ... do	223,780	120,840
Vegetables, dried and canned ... do	1,943,778	324,020
Maize ... do	21,500	430
Butter ... do	14,815	7,704
Lard ... do	218,212	67,614
Molasses ... do	4,060	609
Crackers and biscuits ... do	55,484	17,668
Figs ... do	185,182	38,802
Raisins ... do	57,221	13,502
Fish, preserved and canned ... do	1,673,764	706,814
Cheese ... do	1,578,917	998,214
Table salt ... do	591,387	29,569
Sausages ... do	32,278	23,059
Tea ... do	668,618	668,618
Bacon ... do	3,334	1,667
Wheat ... do	88,000	3,520
Yerba—		
Paraguayan ... do	8,088,491	1,132,389
Brazilian ... do	9,751,602	975,159
Total ...	...	14,561,349
Liquors:		
Mineral waters, in bottles ... dozens	69,715	111,988
Bitters, wormwood ... liters	357,995	139,618
In bottles ... dozens	23,960	143,760
Alcohol ... liters	1,036,514	188,420
In bottles ... dozens	19,736	86,710
Bitters ... liters	21,505	9,032
In bottles ... dozens	75,271	451,625
Caña ... liters	43,022	6,453
Beer ... do	524,792	90,213
In bottles ... dozens	249,701	581,793
Chartreuse, in bottles ... do	4,268	64,020
Cider ... liters	542	194
In bottles ... dozens	1,358	2,852
Brandy ... liters	205,696	74,050
In bottles ... dozens	102,618	615,708

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.		Quantity.	Official value.
Liquors—Continued.			
Gin	liters	1,604,746	$243,952
In bottles	dozens	2,361	7,083
Sirups			2,792
Rum	liters	30,108	12,042
In bottles	dozens	5,913	47,304
Whisky	liters	14,860	5.943
In bottles	dozens	8,009	33,638
Wines—			
Champagne	do	21,973	185,420
Sherry	liters	72,644	37,744
In bottles	dozens	5,575	44,600
Port	liters	244,010	126,885
In bottles	dozens	27,079	216,632
Bordeaux	liters	34,320,059	3,432,006
In bottles	dozens	19,714	118,281
Other kinds—			
Fine	liters	46,760	14,641
Common	do	47,646,235	4.764.623
Vermouth	do	23,592	7,078
In bottles	dozens	63,881	382,286
Other classes, in bottles	do	20,212	97,380
Vinegar	liters	54.719	3,830
In bottles	dozens	913	1,369
Total			12,351,829
Tobacco:			
Cigars—			
Havana	kilograms	17,899	138,435
Other classes	do	301,458	378,190
Cigarettes	do	12,629	17,938
Leaf	do	28,653	17,193
Havana, cut	do	48,203	38,562
Other classes, cut	do	19,022	8,497
Snuff	do	6,435	7.720
Total			1,587,571
Spun and woven goods:			
Oil-cloths	kilograms	12,743	4,669
Matting	do	82,480	28,516
Mats	dozens	5,235	17,275
Frieze	kilograms	22,421	13,453
Carpeting	do	766,643	702,817
Raw cotton	do	5.449	273
Pack-cloth	do	8,632,575	1,726,515
Bramant	do	1,803,386	1,262,370
Baize	do	18,569	29.471
Sail-cloth	do	419,686	419.504
Cassimeres—			
All wool	do	959,881	2,207,726
Mixed	do	699,883	629,894
Ribbons—			
Silk	do	7,440	186,000
Other kinds	do	41,535	118,270
Cord—			
Silk	do	456	2,464
Other kinds	do	905	2,183
Hair-cloth	do	23,400	18,520
Edging, inserting, etc	do	102,309	625,808
Tow cloth	do	183,245	32,985

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Spun and woven goods—Continued.		
Blankets—		
Wool .... kilograms	14,101	$35,252
Other kinds .... do	273,366	265,052
Flannels—		
Wool .... do	292,887	585,774
Other classes .... do	26,904	34,976
Thread—		
Pack .... do	193,258	73,438
Common .... do	1,570,476	277,029
Silk .... do	6,737	107,792
Yarn .... do	98,786	117,014
Impermeable cloth .... do	270,918	103,355
Ropes and shrouding .... do	1,580,532	371,912
Duck and sail-cloth .... do	665,106	400,851
Wicking .... do	81,256	58,934
Billiard cloth .... do	2,662	10,116
House lines and twine .... do	595,203	129,819
Raw hemp .... do	336,813	23,576
Soles for alpargata shoes .... do	854,031	256,209
Prunella cloth .... do	4,199	8,047
Gold lace	....	11,836
Silk lace .... kilograms	27,667	129,620
Cotton goods .... do	6,890,609	5,052,507
Hempen goods .... do	105,239	43,674
Linen goods .... do	217,097	325,780
Woolen goods .... do	346,503	967,835
Mixed goods .... do	573,523	1,666,033
Silk goods .... do	46,419	777,209
Jute goods, etc .... do	168,620	93,280
Silk velvet .... do	1,145	20,610
Gutta-percha goods .... do	26,937	25,774
Chintz and calicoes .... do	1,420,750	1,278,675
Total	....	21,280,647
Clothing, etc.:		
Shirts .... dozens	39,637	262,528
Chemises .... do	4,474	42,842
Undershirts—		
Silk .... kilograms	1,375	22,000
Other kinds .... do	320,555	395,150
Do .... dozens	1,203	4,822
Drawers—		
Silk .... kilograms	18	288
Other kinds .... dozens	11,267	21,098
Cravats .... do	40,960	118,878
Dressing gowns and skirts .... do	2,304	13,553
Cuffs and collars .... do	55,218	83,894
Corsets .... do	14,707	98,981
Hats and bonnets .... do	6,227	27,740
Gloves, other than kid .... do	584	6,381
Do .... kilograms	4,507	30,700
Stockings—		
Silk .... dozens	1,020	16,320
Other kinds .... do	621,366	1,085,517
Pocket-handkerchiefs—		
Silk .... kilograms	16,333	265,288
Other kinds .... do	257,724	454,726
Towels .... do	147,398	240,952
Suits (men's clothing)	....	1,083,665
Umbrellas and parasols .... number	60,741	76,609

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Clothing, etc.—Continued.		
Hats and caps for men ... dozens	86,725	$549,270
Various articles—		
Cotton goods		1,076,846
Hempen goods		13,451
Linen goods		203,342
Woolen goods		625,059
Mixed goods		677,929
Silk goods		174,990
Other goods		18,429
Total		7,727,798
Drugs and chemicals:		
Sulphuric acid ... kilograms	925,126	46,256
Muriatic acid ... do	18,638	1,864
Nitric acid ... do	34,173	6,989
Other acid		43,655
Linseed-oil ... kilograms	645,482	115,946
Palm-oil ... do	159,094	31,819
Other oil		311,586
White lead ... kilograms	4,755	906
Alcohol ... liters	24,038	4,783
Tar ... kilograms	230,238	11,512
Alum ... do	39,634	2,193
Liquid ammonia ... do	34,390	12,037
Indigo ... do	5,190	15,570
Sulphur ... do	759,920	15,014
Turpentine ... do	453,035	58,894
Varnish ... do	135,761	100,808
Bicarbonate of soda ... do	103,233	7,409
Benzine ... do	38,817	5,705
Blacking ... do	67,770	18,298
Borax ... do	81,383	23,864
Chloride of lime ... do	53,379	2,869
Carbonate of magnesia ... do	1,025	410
Carbonate of soda ... do	105,500	4,220
Glue ... do	224,303	33,688
Paints—		
In powder ... do	1,692,170	138,325
Prepared ... do	2,510,282	284,065
Fire-crackers ... do	225,947	79,082
Dextrine ... do	14,708	2,941
Stearine ... do	10,714	3,214
Essences		47,773
Specifics for curing sheep scab		107,307
Phosphorus ... kilograms	11,555	11,729
Glucose ... do	113,609	9,089
Gelatine ... do	13,152	8,493
Gums ... do	196,350	79,807
Glycerine ... do	12,502	5,358
Iodide of potassium ... do	376	2,256
Common soap ... do	59,396	17,757
Perfumed soap ... do	85,606	38,092
Malt ... do	2,840,315	284,032
Prepared medicines		600,614
Perfumery		342,150
Resin ... kilograms	2,463,335	64,381
Potassa ... do	20,864	3,130
Powder ... do	146,398	73,784
Pharmaceutical products		129,893

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Drugs and chemicals—Continued.		
Chemical products		$673,559
Common salt ... kilograms	391,779	242,903
Calcined soda ... do	2,643,044	79,291
Caustic soda ... do	418,337	20,917
Sulphate of iron ... do	9,047	180
Sulphate of magnesia ... do	1,000	100
Sulphate of quinine ... do	171	5,985
Gypsum ... do	171,368	3,427
Printing-ink ... do	72,055	15,852
Writing-ink ... do	140,649	14,064
Turpentine ... do	10,123	1,013
Vaseline ... do	2,992	1,496
Total		4,326,264
Lumber and wooden articles:		
Lumber—		
Pine ... square meters	11,920,902	5,026,836
Walnut ... do	127,226	127,226
Oak ... do	73,120	58,496
Cedar ... do	398,847	162,197
Mahogany ... do	1,632	2,774
Rose-wood ... do	2,734	9,569
Quebracho ... do	61,477	12,296
Other woods ... do	990,492	300,263
Trunks and boxes ... number	184,192	25,980
Carts and carriages ... do	720	202,926
Shooks and staves ... do	36,628	67,841
Sleepers ... do	3,000	9,000
Musical instruments of wood		128,826
Launches and boats ... number	5	10,450
Furniture in general		1,083,225
Pianos ... number	2,143	467,319
Walking sticks ... dozens	3,341	14,308
Other wooden articles		690,878
Total		8,399,610
Paper and paper manufactures:		
Writing-paper ... kilograms	625,058	192,785
Drawing-paper ... do	14,038	7,300
Printing-paper ... do	3,500,145	910,038
Wall-paper ... do	301,547	133,925
Wrapping-paper ... do	1,350,731	278,698
Binding-paper ... do	36,459	18,229
Cigarette paper ... do	236,938	201,396
Drying-paper ... do	22,441	8,976
Litmus paper ... do	4,369	11,470
Silk paper ... do	19,317	7,727
Albums, all kinds ... dozens	642	6,022
Playing cards ... gross	2,232	33,480
Pasteboard ... kilograms	543,738	73,438
Papier-maché articles		265,514
Other articles of paper		213,642
Blank books ... kilograms	233,402	192,936
Printed books ... do	600,942	600,942
Printed music ... do	12,423	9,938
Other printed matter ... do	121,282	102,493
Polygraphic materials		129,546
Total		3,398,495

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Leather and leather manufactures:		
Shoes—		
Of leather ... dozens	47,689	$362,405
Other kinds ... do	8,479	37,703
Pocket-books, carteras, etc ... do	10,945	36,692
Valises and bags ... number	4,427	17,100
Saddles ... do	1,823	21,427
Gloves ... kilograms	2,813	45,008
Harness		241,414
Other articles of leather		172,191
Hides, dressed with the hair		22,652
Raw hides ... kilograms	2,182	1,308
Tanned hides ... do	4,962	8,627
Tanned goat-skins ... do	3,433	2,059
Tanned skins of other animals		943,244
Total		1,911,830
Iron and iron manufactures:		
Steel, unmanufactured ... kilograms	2,710,053	326,554
Anchors		1,928
Arms and accouterments		331,751
Wire—		
For fencing ... kilograms	28,323,076	1,515,368
Other kinds ... do	2,664,927	199,655
Needles ... thousands	37,380	15,654
Kitchen utensils		885,889
Nails ... kilograms	1,972,069	176,996
Chains ... do	408,822	51,968
Iron safes ... do	333,584	73,389
Piping ... do	3,314,156	296,567
Kitchen and heating stoves ... do	311,826	31,182
Cutlery		445,643
Carriage springs ... kilograms	877,775	190,164
Iron hoops ... do	355,223	21,923
Iron ornaments		1,448,864
Iron, unmanufactured ... kilograms	64,622,493	2,620,495
Tools and utensils		690,957
Iron furniture		67,057
Steel pens ... gross	39,718	7.943
Iron beams and columns ... kilograms	31,813,234	1,411,065
Plows ... number	26,950	254,014
Shellers ... do	1,307	38,076
Scythes ... kilograms	10,517	5,476
Rakes ... do	32,029	10,569
Plowshares ... do	124,530	35,127
Planting-machines ... number	119	5,464
Harvesters ... do	2,048	341,112
Threshing-machines ... do	168	155,451
Spades and shovels ... kilograms	465,467	108,997
Other agricultural implements, etc		227,899
Pumps ... number	1,610	17,134
Sewing-machines ... do	25,027	362,314
Printing-presses ... do	290	72,108
Other presses ... kilograms	23,721	3,578
Engines and machinery		2,171,095
Other manufactures of iron		3,023,880
Total		17,643,314
Materials for public works:		
Railways		13,624,351
Gas-works		302,964

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Materials for public works—Continued.		
Mining	....	$82,148
Sugar industry	....	34,000
City sewerage	....	46,214
Tram-ways	....	140,812
Telegraphs	....	45,567
Port works	....	544,752
Telephones	....	71,079
Water-works	....	581,445
Total	....	15,472,332
Metals and their manufactures:		
Jewelry	....	862,838
Quicksilver ... kilograms	34	102
Bronze—		
In powder ... do.	5,258	15,774
Articles of art	....	23,570
Copper and bronze ... kilograms	131,995	46,198
Manufactured	....	236,881
Tin composition ... kilograms	62,105	26,084
Manufactured	....	2,770
Instruments—		
Mathematical, scientific, etc	....	105,850
Musical	....	2,177
Tin ... kilograms	1,390,821	111,265
Manufactured	....	82,946
Metallic belting	....	607,668
Gold-leaf ... thousands	2,747	28,019
Lead ... kilograms	869,282	67,334
Manufactured	....	198,564
Watches—		
Gold ... number	6,397	169,493
Other classes ... do.	30,550	126,884
Clocks ... do.	45,159	79,841
Weights and scales ... do.	15,078	101,797
Printing types ... kilograms	159,158	82,783
Zinc ... do.	1,424,872	113,544
Manufactured	....	5,463
Other metals, manufactured	....	7,232
Total	....	2,805,077
Glass and stone ware and ceramic products:		
Tiles—		
Flooring ... thousands	21,663	400,819
Paving ... do.	1,306	33,693
Glass bottles ... dozens	366,268	109,880
Lime ... hectoliters	9,117	6,728
Crystals for spectacles and watches	....	651
Glassware	....	751,507
Glass and porcelain lamps	....	570,568
Bricks ... thousands	1,564	26,044
Stone-ware	....	391,125
Marble ... square meters	54,864	123,183
Manufactures ... do.	18,613	44,639
Works of art	....	67,473
Mosaics ... kilograms	2,159,971	122,182
Objects of art in terra cotta, etc	....	43,504
Precious stones, unset	....	205,111
Lithographic stones ... kilograms	37,025	3,703
Grindstones ... do.	267,993	9,775
Building stone ... square meters	672,184	1,343,091

Table showing imports into the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Glass and stone ware and ceramic products—Continued.		
Slate roofing ... square meters	41,054	$16,422
Porcelain	....	369,152
Tiles for roofing ... thousands	2,109	105,450
Hydraulic cement ... kilograms	33,718,836	674,375
Glass and crystal plate ... square meters	588,417	291,911
For mirrors ... do	55,016	281,605
Total	....	5,992,589
Combustibles, etc.:		
Candles—		
Stearine ... kilograms	589,508	176,852
Other kinds ... do	1,700	1,530
Stone-coal ... do	333,798,549	3,337,985
Coke ... do	2,007,481	34,127
Matches—		
Wax ... do	1,328	1,129
Wooden ... do	46,463	14,868
Kerosene ... liters	14,124,976	706,249
Total	....	4,272,740
Various manufactured articles, etc.:		
Fancy articles	....	1,148,709
Buttons ... gross	240,641	91,244
Corks ... kilograms	273,055	81,917
Sponges ... do	13,871	37,666
Cases and work-boxes ... dozens	397	2,825
Manufactures of gutta-percha	....	84,072
Toys	....	204,520
Pencils ... gross	6,883	10,803
Hops ... kilograms	63,766	31,883
Church ornaments	....	15,400
Pichua ... kilograms	40,153	28,107
Artistic pictures	....	20,520
Straw goods	....	195,005
Live plants	....	20,016
Leeches ... thousands	38	570
Seeds ... kilograms	61,193	18,358
Apothecary apparatus and utensils	....	363,714
Writing utensils and office materials	....	119,718
Various unenumerated articles	....	4,000,526
Total	....	6,445,690
Total importations	....	128,412,112

Table showing exports from the Argentine Republic during 1888.

Articles.	Quantity.	Official value.
Cattle and animal products:		
Asses ... number	9,632	$19,852
Horses ... do	8,047	76,545
Hogs ... do	4	20
Sheep ... do	21,616	34,685
Mules ... do	6,893	209,816
Horned cattle ... do	94,726	1,798,251
Horns ... kilograms	1,683,768	229,666
Hair ... do	2,019,212	1,257,970

Table showing exports from the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Cattle and animal products—Continued.		
Skins—		
Goat ....kilograms...	770,366	$585,478
Kid ....do.....	533,401	864,111
Sheep ....do.....	28,054,616	5,610,923
Ox and cow hides—		
Dry ....number...	2,609,428	10,046,281
Salted ....do.....	797,192	4,584,728
Horse-hides—		
Dry ....do.....	48,850	84,744
Salted ....do.....	208,655	815,840
Hide cuttings ....kilograms...	1,613,769	98,439
Wool, unwashed ....do.....	131,743,339	44,858,606
Total	....	71,075,955
Agricultural products:		
Bran ....kilograms...	1,325,275	33,132
Peas ....do.....	5,680	170
Canary seed ....do.....	1,559,809	93,589
Barley ....do.....	234,746	6,596
Fresh fruit	....	30,906
Linseed ....kilograms...	40,222,888	2,131,813
Maize ....do.....	162,037,510	5,444,464
Pea-nuts ....do.....	1,393,024	55,721
Potatoes ....do.....	248,948	9,958
Baled hay ....do.....	9,250,988	238,308
Beans ....do.....	37,554	1,876
Seeds—		
Turnip ....do.....	3,460	166
Other ....do.....	76,175	3,047
Wheat ....do.....	178,928,549	8,248,614
Total	....	16,298,360
Industrial products:		
Anise-oil ....kilograms...	130,498	20,266
Sugar ....do.....	43,346	5,635
Preserved meat ....do.....	138,093	13,809
Frozen sheep carcasses ....do.....	18,247,988	1,459,839
Extract of meat ....do.....	64,040	128,080
Guano ....do.....	92,180	2,765
Flour ....do.....	6,392,442	639,244
Meat flour ....do.....	469,830	117,457
Salted tongues ....do.....	377,795	56,668
Pepsin ....do.....	21,392	21,392
Cheese ....do.....	9,216	1,843
Grease and tallow ....do.....	14,802,873	2,140,393
Jerked beef ....do.....	26,449,055	3,456,787
Frozen beef carcasses ....do.....	41,581	3,326
Other frozen meats ....do.....	479,294	38,343
Total	....	8,105,847
Products of the forests:		
Vegetable carbon ....kilograms...	108,641	108,641
Sleepers ....number...	6,258	18,774
Nandubuy posts ....do.....	67,576	8,785
Cabinet woods	....	338,019
Quebracho—		
Logs ....kilograms...	7,000,745	140,015
Timber ....square meters...	17,049	32,685

Table showing exports from the Argentine Republic during 1888—Continued.

Articles.	Quantity.	Official value.
Products of the forests—Continued.		
Split posts … number	209,640	$62,692
Nandubuy posts … do	143,964	71,982
Total		781,793
Products of the mines:		
Auriferous sand … kilograms	444,404	75,549
Bismuth … do	39,572	158,288
Copper in bars … do	342,801	171,705
Silver metal … do	11,070	110,700
Copper, mineral … do	348,659	82,665
Silver, mineral … do	370,498	185,248
Lead, mineral … do	124,628	9,970
Virgin silver … do	18,352	679,024
Borax … do	110,000	6,600
Total		1,526,057
Products of the chase:		
Skins—		
Carpincho … number	44,864	52,939
Nutria … kilograms	448,911	300,770
Other		31,246
Ostrich feathers … kilograms	42,247	76,386
Total		461,241
Other products and articles:		
Bone-ash and bones … kilograms	40,042,079	919,855
Wax … do	2,710	824
Macaroni … do	27,331	5,266
Hard bread … do	70,041	6,994
Glycerine … do	122,492	48,997
Old iron … do	1,578,500	31,570
Honey … do	26,665	3,199
Common salt … hectoliters	181,419	114,338
Dried blood … kilograms	593,038	17,790
Tallow, pressed … do	70,352	6,058
Vermicelli … do	110,250	13,230
Tobacco, leaf … do	104,470	10,447
Other articles of national production		407,801
Other articles re-exported		139,210
Ship stores		137,071
Total		1,862,650
Total exports		100,111,903

CONTINUED OVERTRADING.

Thus we may see from the foregoing tables that there is yet no "let up" in the overtrading which, during the last half-dozen years, has been so characteristic of the Argentine Republic. Indeed, the tendency to have the imports exceed the exports is becoming more and more pronounced. I have alluded to this dangerous condition of the Argentine trade so often that it is now "a twice-told tale." It was this excessive overtrading which precipitated the suspension of specie payments in 1884. The General Government at that time tided over the situation by a loan in London of $50,000,000, and the failure of the banks to redeem their notes was legalized by Congress for a period of two years. It was assumed that the banks, learning wisdom by experience, would, with the aid of these foreign loans, be so strengthened in their reserves that they would be able to resume specie payments at the expiration of that time; but when the two years were up it appeared that the banks were financially in a more unsatisfactory state than at first. And in this embarrassing condition, with an increasing balance of trade against the country, the National Congress thought it prudent to continue the decree authorizing the banks to suspend, leaving the date for their resumption to the discretion of the President. Since then the financial condition has been further complicated, as I have said, by the establishment of a system of national banks, which, without being required to make any provision for redeeming their paper issues in gold, have increased the currency circulation, until it now reaches in the neighborhood of $700,000,000. This avalanche of irredeemable bank-notes has postponed the return of specie payments to a very remote period in the future.

BALANCE OF TRADE AGAINST THE COUNTRY.

Meanwhile the demand for gold or for exchange to pay the balances of trade against the country has carried the foreign trade to the verge of a crisis, and there is now a general alarm at the situation. The excess of the imports over the exports which has had to be provided for during the last seven years is as follows:

Year.	Balance of trade.	Year.	Balance of trade.
1882	$857,106	1886	$25,930,904
1883	20,227,852	1887	32,930,305
1884	26,026,308	1888	*48,000,000
1885	10,933,494		

* Estimated.

For the year 1888, while the value of the imports are given by the statistical office in gold, the value of the exports are given in paper, so that $100,111,903, the amount of the exports in paper, at an average of 130 per cent. premium on gold, actually represents only $80,000,000, leaving the balance of trade against the country for that year about $48,000,000 gold, as above given.

THE DRAIN OF GOLD.

The grand total of balances against the nation for the last seven years, it will be seen, amounts to $164,905,969, and to meet this there has been a steady drain of gold out of the country. At first the effect of this depleting process was not fully realized, for the reason that not merely the General Government, but the different provinces, were periodically negotiating loans in Europe, and from the proceeds of these there were always large balances for the banks to draw against; but, as there had to be an end of borrowing, this efficient source of supply for exchange has about ceased, and the only alternative lately has been to buy and remit coin or purchase exchange from the local banks at ruinous rates for currency. Thus, with the balances against the country every year becoming larger and the ability to pay them in depreciated paper becoming less, the general situation, instead of improving, has been growing more desperate. The demand for gold on the part of merchants is now so great and so persistent that it has alarmingly widened the difference between paper and gold, the former, while I write, being worth only about 43 cents to the dollar.

There would be less room for criticism if the imports were of raw materials, or of materials for public works, or of articles to be employed in reproductive industries; but, while no inconsiderable amount is to be charged to the account of these objects, the great bulk, as will be seen by an analysis of the tables, must be put down to liquors, French millinery, and objects of unproductive consumption. It is true that some portion of the increase of imports may also be explained by the increase of population. The latter, however, is comparatively but a small item.

THE EXPORT TRADE.

The true index of a healthy trade is to be looked for in an increase in the tables of export, and I regret to say that for 1888 these exhibit but little actual expansion. The figures, as we have seen, show an apparent increase of $15,690,083 over those of 1887, but, being given in paper, the value, when reduced to a gold basis, is scarcely so large as it was for the previous year. It should be remembered, however, that there was a very general failure of the crops last year, which not only reduced that item of export, but materially depressed the cattle industry. But for this cause it is believed that the pressure in the market for foreign exchange would in great part have been relieved. The falling off in the shipments of grain will be seen from the following figures:

Comparative table of grain shipments.

Articles.	1887.	1888.	Decrease.
	Kilograms.	*Kilograms.*	*Kilograms.*
Barley	825,816	234,746	591,070
Linseed	81,208,176	40,222,888	40,485,288
Indian corn	361,844,305	162,037,510	199,706,795
Pea-nuts	3,367,380	1,393,024	1,974,356
Baled hay	12,375,411	9,250,988	3,124,423
Turnip-seed	940,821	3,460	937,361
Wheat	237,865,925	178,928,549	58,837,376
Bran	4,194,777	1,325,275	2,869,502

The principal increase in shipments was in the pastoral industry. The following table shows the most important items:

Articles.	1887.	1888.	Increase.
	Kilograms.	*Kilograms.*	*Kilograms.*
Congealed sheep carcasses	11,038,889	18,247,988	6,209,099
Jerked beef	21,865,310	26,449,055	4,583,745
Grease and tallow	7,169,649	14,802,873	7,633,224
Congealed cattle carcasses	128,664	479,294	355,630
Unwashed wool	109,164,383	131,743,339	22,578,956

Besides the above, there was an increase in the shipments of industrial products of $3,393,102 and of minerals of $1,339,701.

Until there is a decrease in the amount of imports, or a corresponding increase in the production of the country, we may assume that the trade and economic condition of the country will continue to be disturbed and embarrassed.

ARGENTINE TRADE WITH EACH COUNTRY.

To give our merchants and manufacturers a clearer view and more definite knowledge of the foreign trade of the Argentine Republic, a field which they are all anxiously striving to cultivate, I give below a glance at the classes of merchandise and manufactures which made up its commerce with the more important countries for the year 1888.

Germany.—The expansion within the last few years of the trade between Germany and the Argentine Republic continues to attract attention. In 1879 the total trade amounted to $3,880,740; in 1888 it had reached a total of $26,619,640. The imports in 1879 were $2,292,574; in 1888 they amounted to $13,310,094; while the exports to Germany, which in 1879 were only $1,588,166, in 1888 reached to $13,309,546. The importations from Germany during 1888 were as follows:

Articles.	Value.	Articles.	Value.
Comestibles and groceries	$1,173,411	Iron manufactures	$1,590,631
Liquors	646,991	Jewelry, etc	280,126
Tobacco	126,657	Glass and stone ware	791,962
Woven goods	2,677,268	Boots, shoes, and leather	240,013
Drugs and chemicals	756,949	Materials for public works	218,424
Wooden ware, furniture, etc	902,155	All other imports	218,702
Ready-made clothing	1,910,298	Total	13,310,094
Paper, etc	1,776,507		

In these imports are included 5,018 tons of rice, 1,804 tons of refined sugar, 894 tons of cod-fish, $203,861 worth of German beer, 16,181 bottles of port wine, 2,800 tons of malt, 1,258 pianos, 1,749 tons of printing-paper, 15,535 sewing-machines, and $240,000 worth of toys.

The exports to Germany included the following articles:

Articles.	Value.	Articles.	Value.
Sheep-skins	$349,181	Indian corn	$111,816
Ox and cow hides	795,601	Linseed	95,697
Horse-hides	624,803	Silver and other minerals	212,218
Unwashed wool	10,328,569	All other exports	515,556
Wheat	205,266	Total	13,309,546
Flour	70,839		

The amount of unwashed wool that went to Germany was 30,333,537 kilograms, and of good sheep-skins 1,745,907 kilograms. The amount of wheat was 4,452,634 kilograms.

Belgium.—The imports from Belgium into the Argentine Republic show a slight increase over the previous year. They consisted as follows:

Articles.	Value.	Articles.	Value.
Comestibles and groceries	$969,185	Iron manufactures	$4,021,337
Liquors	471,658	Materials for public works	296,138
Tobacco	156,705	Jewelry, etc	258,745
Woven goods	1,587,433	Glass and stone ware	991,033
Ready-made clothing	548,214	Boots and shoes	336,039
Drugs and chemicals	172,170	All other imports	948,693
Wooden ware	217,737	Total	11,084,482
Paper	109,495		

Included in these imports were 24,922 tons of iron columns and beams for building, 1,791 sewing-machines, 21,899 dozens of pairs of shoes, 912 tons of printing-paper, 494,600 square meters of plate glass, and 11,102 tons of wire for fencing.

The following were the exports to Belgium:

Articles.	Value.	Articles.	Value.
Hair	$475,542	Flour	$88,687
Sheep-skins	217,270	Extract of meat	198,969
Ox and cow hides	2,203,716	Canary seed	20,054
Linseed	185,008	Jerked beef	54,145
Indian corn	374,828	All other imports	199,320
Wheat	2,091,735	Total	16,679,944
Unwashed wool	10,570,680		

The amount of unwashed wool that was shipped to Belgium was 31,044,581 kilograms, and of sheep-skins 1,086,349 kilograms. The number of ox and cow hides was 118,045 dry and 303,686 salted. The wheat amounted to 45,373,828 kilograms and the flour to 886,870 kilograms.

France.—The trade of the Argentine Republic with France for 1888 remains at nearly the same figures as the year previous, the only difference being an increase of about $3,000,000 in the amount of the exports from this country.

The imports were as follows:

Articles.	Value.	Articles.	Value.
Groceries and comestibles	$3,134,350	Boots and shoes	$824,892
Liquors	5,277,839	Iron manufactures	1,395,219
Tobacco	186,413	Jewelry, etc	1,115,174
Woven goods	3,680,021	Glass and stone ware	1,282,826
Ready-made clothing	2,078,935	Fancy and other articles	1,127,256
Drugs and chemicals	948,733	All other imports	639,979
Furniture	695,645	Total	22,966,857
Paper, etc	579,575		

Included in the imports are 9,390,647 kilograms of refined sugar, 537,432 kilograms of cheese, 33,974,585 liters of claret wine, 560 pianos, and 683,445 kilograms of canned vegetables and fruits.

The exports to France included the following articles:

Articles.	Value.	Articles.	Value.
Sheep-skins	$3,966,294	Flour	$121,669
Goat and kid skins	714,854	Grease and tallow	269,926
Ox and cow hides	518,891	Pea-nuts	44,770
Unwashed wool	19,724,198	Silver metal	211,179
Indian corn	943,079	All other exports	684,823
Linseed	260,624	Total	27,973,561
Frozen sheep	57,220		
Wheat	546,034		

The exports of sheep-skins were 19,831,471 kilograms; of unwashed wool, 57,927,161 kilograms; of wheat, 11,844,542 kilograms; of Indian corn, 28,067,809 kilograms; of linseed, 4,917,427 kilograms; and of flour, 1,216,690 kilograms.

Great Britain.—The expansion of the trade of the Argentine Republic with Great Britain in the last ten years is quite marvelous. The following are the figures since 1879:

Year.	Imports.	Exports.	Total.
1879	$12,431,467	$3,878,969	$16,310,436
1880	12,506,923	5,341,034	17,847,967
1881	16,035,277	3,889,424	19,924,701
1882	19,554,962	7,625,516	27,180,448
1883	30,695,963	5,956,093	36,652,056
1884	30,727,694	7,211,437	37,939,131
1885	35,375,628	12,816,341	48,191,969
1886	33,432,660	10,071,850	43,504,510
1887	34,779,210	17,085,001	51,864,220
1888	44,044,851	17,061,411	61,106,262

Here we see that the imports from Great Britain have increased nearly 30 per cent., the exports 23 per cent., and the total trade 26 per cent., during the last ten years. The trade with Great Britain to-day stands for about one-fourth of the entire foreign commerce of the Argentine Republic.

The imports from Great Britain for 1888 were as follows:

Articles.	Value.	Articles.	Value.
Live stock	$105,350	Boots and shoes	$388,576
Comestibles and groceries	1,400,845	Iron manufactures	4,565,167
Liquors	476,871	Agricultural and other implements	374,439
Woven goods	11,158,074	Engines and machinery	3,164,435
Ready-made clothing	2,310,547	Materials for public works	10,767,088
Drugs and chemicals	1,249,066	Stone and glass ware	855,482
Furniture, etc	347,610	Combustibles, coal, etc	3,251,634
Paper, etc	455,470	All other imports	2,354,183
Jewelry, etc	765,297	Total	44,044,851
Tobacco	44,717		

These imports include 319,388 tons of stone-coal, 1,887 sewing-machines, 3,264 tons of iron piping, 188 tons of hams, 565 tons of printing-paper, 2,139 tons of prepared paints.

The exports from the Argentine Republic to Great Britain include the following items:

Articles.	Value.	Articles.	Value.
Sheep-skins	$458,150	Flour	$20,952
Dry ox and cow hides	788,715	Grease and tallow	617,597
Salted ox and cow hides	1,369,883	Cabinet woods	258,582
Unwashed wool	1,086,528	Silver metal	568,521
Linseed	1,465,452	Bones and bone-ash	553,787
Indian corn	3,353,567	All other exports	869,062
Wheat	4,371,273	Total	17,061,411
Hair	89,355		
Congealed mutton carcasses	1,189,987		

Included in these exports were 3,190,977 kilograms of unwashed wool, 2,290,750 kilograms of sheep-skins, 443,920 kilograms of ox and cow hides, 99,808,554 kilograms of Indian corn, 94,822,815 kilograms of wheat, 27,650,030 kilograms of linseed, and 14,874,835 kilograms of frozen sheep carcasses.

In regard to the trade of Great Britain, I have only to repeat what I have heretofore frequently said, that over and above the mere commerce—with its gigantic proportions—which exists between the two countries there is now invested here an immense amount of British capital in lands, in cattle and sheep farming, in manufactures, in mining, in river and ocean steamers, in railways, and in various other important public works. British capital is now building a port for Buenos Ayres, and is also engaged in completing the sewerage and drainage works of this city. The English have now two banks in this city, each of which has a branch at Rosario, with a total capital of $12,000,000. With their numerous mercantile establishments in Buenos Ayres and Rosario, all having close relations with manufacturing establishments at home, and with a score of steam-ship lines between the ports of Great Britain and the river Plate, it would seem that nothing is wanting to assist, dispatch, and indefinitely augment the commerce which they now so completely control, or to strengthen the industrial foot-hold which they now have in the country.

United States.—The volume of trade of the Argentine Republic with the United States shows a slight reduction on the figures of the previous year. The imports are not quite so large and the exports are somewhat larger. The following are the figures for the last ten years:

Year.	Imports.	Exports.	Total.
1879	$3,921,379	$3,917,676	$7,839,055
1880	3,224,743	5,126,429	8,351,182
1881	4,268,110	4,035,714	8,323,824
1882	5,094,764	2,956,582	8,051,546
1883	4,933,054	3,510,574	8,443,628
1884	7,454,832	4,064,848	11,519,686
1885	7,006,719	5,563,841	12,570,560
1886	7,673,284	3,580,406	11,253,690
1887	11,004,553	5,938,808	16,943,361
1888	9,909,895	6,665,520	16,575,415

As a matter of especial interest to our manufacturers and export merchants, I transcribe from the returns of the national statistical office the following tables of imports and exports for the year 1888. It may not tell the whole story of our trade with the Argentine Republic, but it is the only exhibit the Argentine Government, owing to its method of invoicing imports, is able to give.

Imports from the United States in detail.

Articles.	Quantity.	Official value.
Groceries and comestibles:		
Refined sugar ... kilograms	45,349	$8,615
Starch ... do	48,730	5,848
Prepared meats ... do	544	249
Cinnamon ... do	8,771	4,561
Chocolate ... do	60	60
Dulces ... do	680	408
Spiçes and condiments ... do	11,578	4,893
Canned vegetables ... do	2,245	538
Dried and preserved fruits ... do	2,276	647
Corn-starch ... do	8,880	2,480
Hams ... do	996	538
Dried vegetables ... do	4,341	1,932
Butter ... do	1,340	697
Lard ... do	197,638	61,268
Biscuits and crackers ... do	2,572	712
Preserved fish ... do	127,250	52,608
Cheese ... do	35,272	24,822
Fine salt ... do	450	225
Liquors:		
Beer—		
In casks ... liters	12,900	2,193
In bottles ... dozens	1,263	2,943
Sirups	...	144
Rum, bottled ... dozens	49	392
Whisky, bottled ... do	30	186

Imports from the United States in detail—Continued.

Articles.	Quantity.	Official value.
Liquors—Continued.		
Wines ... liters	1,804	$209
Olives ... kilograms	42	9
Tobacco:		
Cigars, Havana ... do	248	1,984
Cigarettes ... do	6	12
Leaf ... do	145,210	54,046
Cut		2,352
Spun and woven goods:		
Shag ... kilograms	484	566
Sacking ... do	140,692	28,138
Pack-thread ... do	5,206	3,644
Cassimeres ... do	2,573	3,809
Tow ... do	6,676	1,202
Thread in carrots ... do	36,152	13,738
Sewing-thread ... do	800	132
Yarn ... do	343	206
Impermeable goods ... do	7,030	2,193
Cordage ... do	367,261	125,602
Sail-cloth ... do	190,851	146,728
Wicking ... do	15,758	11,802
Cordage ... do	9,541	4,837
Soles for alpargatas ... do	2,006	602
Cotton goods ... do	163,225	105,057
Woolen goods ... do	120	360
Mixed goods ... do	166	2,664
Gutta-percha goods ... do	328	328
Calicoes and prints ... do	83,259	74,934
Clothing, etc.:		
Cravats ... dozens	100	160
Corsets ... do	66	396
Stockings ... kilograms	2,467	5,350
Handkerchiefs ... do	12	19
Ready-made clothing		1,335
Umbrellas and parasols		440
Hats and caps		928
Various ready-made articles—		
Cotton		8,429
Hempen		5,400
Linen		603
Chemicals, drugs, etc.:		
Palm-oil ... kilograms	36,260	7,252
Other oil		55,488
Alcohol		75
Turpentine ... kilograms	384,854	50,031
Varnish ... do	24,684	19,685
Benzine ... do	36,748	5,437
Shoe blacking ... do	36,897	9,922
Glue ... do	3,172	820
Paints—		
In powder ... do	24,114	3,259
Prepared ... do	14,334	1,663
Fire-crackers		62,429
Essences		108
Specifics for cure of sheep scab		10,125
Gum ... kilograms	655	565
Soap—		
Common ... do	3,738	1,305
Perfumed ... do	1,744	796
Patent medicines		72,941
Perfumery		13,657

Imports from the United States in detail—Continued.

Articles.	Quantity.	Official value.
Chemicals, drugs, etc.—Continued.		
Resin		$41,056
Potassa		507
Pharmaceutical preparations		759
Chemical preparations		29,166
Calcined soda … kilograms	41,262	1,238
Sulphate of lime … do	116,794	2,336
Printing-ink … do	6,516	1,434
Writing-ink … do	1,033	103
Turpentine … do	10,128	1,013
Vaseline … do	2,750	1,375
Lumber, furniture, etc.:		
Lumber—		
Pine … square meters	11,306,921	4,769,402
Walnut … do	91,500	91,500
Oak … do	62,967	50,374
Cedar … do	4,920	2,460
Mahogany … do	820	1,394
Unclassified … do	205,147	41,020
Trunks … do	3,574	2,666
Carts and carriages … number	202	25,687
Spokes and staves … do	4,629	15,293
Do.		6,803
Musical instruments		5,179
Boats … number	2	4,050
Furniture		251,825
Pianos … number	41	10,663
Other articles of wood		143,860
Paper, etc.:		
Writing-paper … kilograms	844	200
Printing-paper … do	12,978	3,374
Wall-paper … do	10,284	5,187
Wrapping-paper … do	1,075	404
Cigarette paper … do	744	632
Drying-paper … do	390	156
Litmus paper … do	4,077	10,549
Silk paper … do	40	16
Papier-maché articles		2,590
Other articles of paper		3,363
Blank books … kilograms	2,716	2,117
Printed books … do	25,961	25,961
Printed music … do	1,481	1,185
Other printed matter … do	5,145	4,196
Photographs, lithographs, etc		926
Leather, etc.:		
Leather shoes … dozens	3,455	37,184
Other shoes … do	1,895	6,718
Pocket-books, carteras, etc … do	3,723	14,069
Valises … number	1,849	5,984
Saddles … do	175	1,929
Leather gloves … kilograms	1,565	25,040
Harness		49,836
Other leather articles		47,483
Sole-leather		1,138
Furs		9,558
Other skins, dressed		625,943
Iron and iron manufactures:		
Steel … kilograms	1,323	183
Fire-arms, etc		28,883
Wire for fencing		47,399
Other wire		9,956

Imports from the United States in detail—Continued.

Articles.	Quantity.	Official value.
Iron and iron manufactures—Continued.		
Needles ... thousands	466	$443
Kitchen utensils		82,658
Nails ... kilograms	40,549	6,591
Iron chains ... do	4,807	566
Iron safes ... do	12,273	2,700
Iron piping		48
Stoves		4,013
Cutlery		117,236
Carriage springs		67,774
Separators ... number	1,569	275,362
Threshers ... do	41	10,854
Spades and shovels ... kilograms	339,670	85,050
Other agricultural instruments		85,116
Pumps ... number	1,177	8,225
Sewing-machines ... do	4,850	75,454
Printing and lithographic presses ... do	43	3,420
Other presses ... kilograms	8,866	1,330
Machinery and engines		325,227
Other manufactures of iron		241,673
Materials for railways		282,384
Materials for gas-works		1,068
Materials for tram-ways		13,810
Materials for telegraphs		3,259
Materials for port works		25,015
Metals and their manufactures:		
Jewelry		2,309
Copper and bronze, manufactured		1,308
Mathematical and other instruments		1,399
Tin ... kilograms	64,806	5,184
Metallic belting		24,650
Lead ... kilograms	8,345	751
Manufactured		2,558
Watches—		
Gold ... number	8	160
Other kinds ... do	330	766
Clocks ... do	19,089	34,263
Measures and scales ... do	5,422	70,170
Printing types ... kilometers	68	35
Zinc ... do	920	86
Glass and other ware:		
Glassware		9,943
Lamps		63,837
Bricks		2,834
Stone-ware		2,866
Marble works ... square meters	62	125
Mosaic ... kilograms	14,281	900
Objects of art		612
Grindstones ... kilograms	12,184	494
Building stones ... square meters	105	210
Tiles for roofing		1,278
Porcelain		3,341
Hydraulic cement ... kilograms	340,070	6,801
Glass ... square meters	2,899	1,254
Mirrors ... do	31	217
Combustibles, etc.:		
Stearine candles ... kilograms	2,700	810
Stone-coal ... do	6,451,507	64,515
Coke ... do	40,995	677
Kerosene ... liters	12,221,330	621,067

Imports from the United States in detail—Continued.

Articles.	Quantity.	Official value.
Various manufactured articles, etc.:		
Fancy articles		$1,478
Corks .... kilograms	8	2
Sponges .... do	3,700	7,790
Cases and work-boxes .... dozens	36	133
Gutta-percha articles		2,387
Toys		799
Straw goods		4,154
Utensils for apothecaries		26,956
Utensils for offices		3,354
Various articles		177,367
Total		9,909,895

Exports to the United States in detail.

Articles.	Quantity.	Official value.
Horses .... number	2	$30
Cattle .... do	14	210
Hair .... kilograms	384,870	339,774
Goat-skins .... do	605,356	460,070
Kid-skins .... do	100,082	162,133
Sheep-skins .... do	15,053	3,011
Dry ox and cow hides .... number	1,126,267	4,336,111
Salted ox and cow hides .... do	26,320	151,603
Hide cuttings .... kilograms	81,672	4,982
Unwashed wool .... do	2,332,467	794,205
Peas .... do	650	22
Canary seed .... do	15,000	900
Linseed .... do	2,123,470	112,544
Maize .... do	340	11
Pea-nuts .... do	39,000	1,560
Baled hay .... do	300	8
Beans .... do	2,250	112
Wheat .... do	1,787,432	82,401
Sugar .... do	1,083	140
Preserved meat .... do	495	49
Flour .... do	7,760	776
Cheese .... do	184	25
Jerked beef .... do	1,309	170
Various woods		140
Carpincho skins .... kilograms	25,837	30,488
Nutria skins .... do	124,303	83,282
Other skins		8,191
Ostrich feathers .... kilograms	17,098	39,947
Bones and bone-ash .... do	5,262,561	121,929
Old iron .... do	865,000	17,300
Common salt .... do	206	128
Dried blood .... do	150,150	4,503
Hard bread .... do	16,400	1,476
Macaroni .... do	3,521	704
Tobacco leaf .... do	104,470	10,447
Unenumerated articles		4,564
Re-exported articles		332
Total		6,665,520

THE UNITED STATES NOT CREDITED WITH THEIR FULL SHARE OF IMPORTS.

I have just stated that these tables, owing to the method of invoicing imports in the Argentine custom-house, do not tell the correct story of the shipments from the United States to the Argentine Republic. While the custom-house returns give the figures at $9,909,895, it is well known that there is a large amount of merchandise which now comes to the river Plate from the United States, by way of Europe, and which is not credited to the United States at all; and another large amount, which, being transshipped at Rio de Janeiro from the American line of steamers to other steamers which touch there en route from European ports, are credited to the countries to which the latter steamers belong. The first glance at the foregoing statement of imports shows this fact. We know, for instance, that during the last three or four years there has been a large trade here in breeding horses, cattle, and sheep imported from the United States, and yet the Argentine returns do not give us credit for a single animal. The reason is that, having been sent by way of Liverpool, or having been reshipped at Rio de Janeiro on a European steamer, they all figure in the returns of some European country. If the shipments are made from New York via England by the Lamport & Holt line of steamers, in the Argentine commercial returns they are entered as coming from Great Britain. If they are made from New York in the North German Lloyd's line via Bremen, they are all credited to Germany, the United States not appearing in the transaction at all. For these reasons, and owing to the manner in which the custom-house returns of this country are made up, it is not possible to give the correct amount of imports from the United States; but, from an inspection of the bills of lading in these cases, it appears that the goods thus transshipped, as a general thing, are not such as depend upon their bulk for their value, consisting of hardware, plated ware, lamps and gas fixtures, clocks, tobacco, hams, cheese, tools and agricultural implements, live stock, cotton textiles and other piece-goods, duck, sail-cloth, etc.; and, from what the agents of the steamers here inform me, they must amount, in the course of each year, to several millions of dollars. If properly classified, they would materially increase the sum total of our imports to this country. As it is, the statistics fail to show that a single cent's worth of this indirect trade really belongs to the United States.

COMPARISON OF SHIPMENTS.

It is for this reason that the imports from the United States to the Argentine Republic for 1888 appear to be somewhat less than for the previous year, while in reality they are considerably larger

Taking the figures, however, as they are given by the Argentine custom-house returns, the following is a comparison of our shipments of leading articles for the last five years:

Articles.	1884.	1885.	1886.	1887.	1888.
Turpentine	$34,430	$25,152	$48,933	$110,546	$50,031
Starch	49,448	45,438	41,071	42,879	5,848
Agricultural implements	136,530	611,002	455,450	580,891	662,090
Lamps and gas fixtures	66,159	86,596	69,404	70,508	77,915
Lumber	2,817,146	3,453,719	3,352,620	6,117,847	4,946,140
Furniture	92,517	129,792	289,246	248,396	406,248
Cotton goods	178,178	200,697	238,716	366,695	179,991
Hardware, etc	240,694	226,073	542,824	562,447	739,667
Kerosene	866,741	341,891	707,220	1,109,540	611,067
Railway machinery, etc	834,168	392,119	165,020	248,940	650,663
Drugs, chemicals, etc	62,355	82,224	342,658	369,118	394,537
Hempen and woolen goods	189,136	165,534	417,207	171,455	325,954
Tobacco	208,420	98,542	77,856	100,703	58,394

It will be seen that the three principal articles which foot up less than for the previous year are lumber, kerosene, and cotton goods. Of the former the receipts in 1888, including transshipments from Montevideo, were 11,846,280 square meters, against 14,561,385 square meters in 1887; of kerosene the receipts in 1888 were 13,619,439 liters, against 14,793,868 liters in 1887; of cotton goods the receipts in 1888 are put down at $179,991, against $369,118 in 1887. The explanation of the latter has already been given. The great bulk of the cotton goods arriving from the United States come by way of Europe. Were the values of these, as well as of a number of other lines of goods, included in the returns, they would show a considerable increase over the previous year's imports. Take, for instance, the article of whisky. The returns show the importation of only 30 dozens of bottles from the United States; it is well known that the article has now a large and steady demand here. So too, of hams. The United States are credited with furnishing only 996 kilograms, while Great Britain is credited with furnishing 188,708 kilograms. It is known that the latter are quite all American hams. And so with the great part of the 76,514 kilograms of cheese credited to England.

There are some articles, however, in which we seem to have quite lost our trade with the Argentine Republic. One of these is starch. It has dwindled down, as appears from the returns, to $5,848 for last year. This might be accounted for by the fact that a number of starch factories have recently been established in this country; but the receipts from abroad for 1888 were 847,454 kilograms, the great bulk of which came from Belgium and Germany. The same may be said of refined sugar. Out of 18,637,650 kilograms imported into the Argentine Republic in 1888, only 45,349 kilograms came from the United States, nearly all being credited to France, Belgium, and Germany. In 1878 our shipments of sugar to this country amounted to 1,051,775 kilograms. Of the $1,587,571 worth of tobacco imported in 1888, it appears that the United States is credited with only $58,394, whereas in former years we had quite a trade with the Argentine Republic.

EXPORTS TO THE UNITED STATES.

The exports from this country to the United States show an increase over the previous year of $726,712. The following is a comparative table of the value of the principal articles of export for the last five years:

Exports.	1884.	1885.	1886.	1887.	1888.
Ox and cow hides	$2,462,244	$2,384,087	$1,764,810	$3,696,235	$4,487,714
Wool	602,637	1,187,115	911,082	1,200,190	794,205
Goat-skins	161,143	955,428	234,938	342,324	622,204
Hair	244,643	182,713	184,964	270,696	239,774

The demand for Argentine hides in the United States appears to be every year increasing. The total shipments of dry ox and cow hides from the Argentine Republic in 1888 were 2,609,428, of which 1,126,267 went to the United States, the largest number which has ever been sent there in any one year. Since the repeal of the Argentine export duty on wools, thus easily bringing the Cordova carpet wools within the lowest figures fixed by our tariff, it was supposed that there would be a large increase in the shipments of that quality of wools; but, instead of this, we find a very considerable reduction in the quantity. The amount shipped in 1887 was 4,000,633 kilograms, while in 1888 it was only 2,332,467 kilograms. While the quantity of goat-skins shipped to the United States in 1887 was 574,540 kilograms, in 1888 it was 705,438 kilograms. The trade in nutria skins seems to be greatly on the decline. The total amount shipped to the United States in 1887 was 444,532 kilograms; in 1888 it was only 124,303 kilograms, the entire shipments from the Argentine Republic amounting only to 448,911 kilograms. The native ostrich likewise seems to be in the way of extermination. The total exports of ostrich feathers last year were only 42,247 kilograms, of which 17,098 kilograms went to the United States.

OUR GENERAL TRADE WITH THE ARGENTINE REPUBLIC.

In regard to our general trade with the Argentine Republic, we continue to suffer under the hard conditions which have characterized it from the beginning. We continue to be lacking in the essentials to any material expansion in its proportions or variety. We are still without direct steam communication with the river Plate; we are still without any proper banking facilities here for the effecting of exchanges or the transaction of business; we are still almost without any distinctive American mercantile establishments in the country. Our commerce, if it come direct, is all conducted through the medium of sailing vessels—sufficient for the exigencies of heavy or bulky cargoes, but for the general purposes of modern trade very decidedly behind the times, and not suitable for the delivery of fine goods or assorted merchandise. We are compelled to do our banking business with the Argentine Republic through the banks of other countries; there is scarcely an invoice of exports from here to the United States which is not consigned to some English banking house.

We have, it is true, a number of enterprising sample houses here which are doing a very fair business on orders, but I do not think we have here a single mercantile house which is distinctively American in character, with the requisite capital to keep supplies of goods in stock ready to supply any demand which offers without waiting for the slow process of requiring customers to wait until their orders can be forwarded to and received from New York—a process which those who are in a hurry do not care to be subjected to, especially as they have to take the chances of slow sailing vessels for their delivery. While I write a sailing vessel, with general cargo, has just entered at this consulate which was one hundred and ten days in the passage.

It is on account of this uncertainty in the delivery of orders that the people here, who otherwise, in many cases, would prefer American articles if they could be supplied at once, are compelled to take an inferior make rather than wait. We have a large variety of manufactures for which we could find a ready or an increased sale here if we had our own American establishments to keep them in stock. Among these may, at random, be mentioned assorted iron and steel implements, wooden ware, clocks, pumps, plated ware, hams, smoked bacon, cheese, cutlery, gas fixtures and lamps, pianos, cotton goods, shooks for barrels and boxes, and a large number of other articles which our manufacturers, by consulting the returns or demands of the import trade, would see for themselves, and which, owing to their superior finish or excellent qualities, would favorably attract the attention of the Argentine people.

Of course, there are a number of English, German, and Argentine houses here which deal liberally in American manufactures; but, owing to the greater facilities for receiving supplies from Europe and the more liberal terms on which they can buy the goods in England, Germany, and France, they have no great personal interest in fostering or striving to increase their trade with the United States. And thus, if our commercial relations with the Argentine Republic do not languish for want of proper push, at least they do not increase to the proportions which they would, with better trade facilities, very speedily assume.

THE DEMAND FOR STEAM COMMUNICATION.

Better trade facilities! When are we to have them? The first, the greatest, indeed, the indispensable prerequisite to that consummation, as I have for the last fifteen years been informing our Government, is the establishment of an American line of steam-ships between the United States and the Argentine Republic. Until this is accomplished, it seems almost absurd to discuss the question of any great increase in our trade with this country. When it is accomplished all the rest will gradually and necessarily follow. There is scarcely a maritime nation of Europe but has its steam communication with the river Plate. There is, indeed, scarcely a maritime nation of South America but also is in steam communication with the river Plate.

We alone—we, who, above all other nations, ought not—we alone, year after year, neglect to make any provision for a closer and more intimate acquaintance with the Argentine Republic. From my point of view, I consider that this is greatly to be regretted. It is unfortunate for the Argentine Republic, and it is unfortunate for us. It seems almost like a reproach to our Government that the two most promising republics in the world do not know each other better. If our financial condition were in the way, there would be some excuse or justification for the persistency with which we keep so far away from our sister Republic. But we are well able to make ample provision for bringing the two nations closer together. We are well able to provide that our means of intercommunication with the Argentine Republic shall be at least as good and convenient as are those of Europe. As I have heretofore said and repeated, I take the liberty of suggesting again that, aside from the benefits which would accrue to our trade from a close and intimate intercommunication by steam, the moral effect upon this part of South America in a political point of view would be almost incalculable. All the business, commercial, and social relations of the Argentine Republic have been from the beginning, and are now, with the people of Europe; and it must follow that, to a greater or less extent, they unconsciously imbibe the opinions and are influenced by the habits of political thought which predominate in the Old World. The United States, with its grand example of self-government, is, except theoretically, unknown to them—as they, with the heroic efforts they are making to reach a higher plane of national life, are unknown to us. Commerce is the medium through which we can become better acquainted. It is the missionary that is at all times and in all places most heartily welcomed and honored.

The more intimate we can thus make the relations of the United States and the Argentine Republic the greater the advantages—political, economical, and social—which will result to both. Steam will do more towards bringing the peoples of the two countries to a more profitable acquaintance with each other than diplomacy, international trade conventions, or consular reports.

DISCOURAGING PROSPECTS OF TRADE.

Whilst, however, the conditions under which our commerce with the river Plate continues to be carried on could be very greatly improved, I am under the necessity of saying, that the general prospects of trade in the Argentine Republic are at the present time decidedly discouraging. Indeed, the foreign trade of the country is just now almost in the throes of a commercial crisis, and it is questionable if matters can long continue in their present condition without a serious collapse. The situation is a complicated one. Commerce is suffering from the excessive overtrading, which for a series of years has been piling up an immense balance of trade against the country; domestic trade is suffering from a plethora of irredeemable bank-notes, whose value, day by day, for the last five years, has been growing "beautifully less;" and the people generally are suffering from too much "boom," too much speculation on a redundant and constantly increasing paper currency.

TRADE RETURNS FOR 1889.

In the midst of my report I have just received an abstract of the custom-house returns of the Argentine Republic for the nine months ending September 30, 1889, and I regret to say that they show no change for the better in the foreign trade of the country. The following are the imports and exports compared with the corresponding period of the previous year:

Description.	Imports.		Exports.	
	1888.	1889.	1888.	1889.
Merchandise	$89,366,920	$116,235,434	$70,923,969	$91,453,853
Coin	19,647,367	5,752,040	4,485,472	25,303,224
Total	109,014,287	121,987,474	75,409,441	116,754,077

The following table shows the imports and exports of each country for the nine months above mentioned:

Country.	Imports.	Exports.
South Africa	....	$3,332
West Indies	$910	772,718
Germany	11,400,115	14,673,662
Belgium	10,262,228	13,050,959
Brazil	1,744,151	9,558,318
Bolivia	65,291	277,513
Chili	20,049	1,921,763
Spain	3,663,087	2,022,553
United States	10,383,659	5,562,226
France	21,104,162	28,712,877
Holland	573,340	43,705
Paraguay	1,359,386	557,776
Portugal	40,458	147,898
Great Britain	40,837,231	21,290,637
Sweden	163,275	....
Uruguay	10,142,879	13,322,322
Not classified	2,895,620	2,382,940
Total	121,987,474	114,301,199

It will be borne in mind that while the foregoing imports are on a gold basis the value of the exports, except the coin, is stated in paper currency, and hence, when brought to a gold basis at the present rate of exchange, would very considerably reduce the amount.

Thus already for 1889 the imports exceed by a very large amount those for the corresponding period of 1888, while the balance of trade against the country for the same time is greatly in excess of the figures of the previous year, or, indeed, of any previous year. At this rate the whole business of 1889 promises to be far more unfortunate for the Argentine Republic than it was at first believed that it would be, thus further complicating the situation and increasing the difficulty for merchants to pay the debts which have been thus accumulating against them abroad.

ARGENTINE TARIFF FOR 1890.

The Argentine Congress at its recent session made some very important changes in the customs law of the country for 1890, increasing the ad valorem duties on a large number of lines of merchandise and putting a duty on some articles which have heretofore been free. The following is a translation of the most important portions of the law:

IMPORT DUTIES.

ARTICLE 1. All foreign merchandisé imported for consumption shall pay a duty of 25 per cent. on its valuation in deposit, except as follows:

(1) Cigars of all kinds, snuff, and objects of art and fancy, which shall pay a duty of 60 per cent.

(2) Tobacco of all kinds, which shall pay a duty of 55 per cent.

(3) Fire-arms and munitions, powder, cartridges and cartridge shells, perfumery; carriages, finished or in pieces; harness and trappings, ready-made clothing, confections, hats and caps, shoes; furniture, finished or in pieces; chocolate and cheese, which shall pay a duty of 50 per cent.

(4) Covers for books of tortoise-shell, mother-of-pearl, ivory, metal, or Russia leather; mosaics, wooden matches, fire-crackers, Paraguayan tea, preserved fruits, preserved vegetables; preserved meats, whether in oil, in vinegar, or liquor, which shall pay a duty of 45 per cent.

(5) Silk and mixed fabrics, laces and cordage, insertings, Paris points, and brass wire, which shall pay a duty of 40 per cent.

(6) Paving stones, trotters, and stones for curbing, which shall pay a duty of 30 per cent.

(7) Linens, bramants, Oxfords, satinets, laces, cotton ticking, calicoes, chintz goods, and rice, which shall pay a duty of 15 per cent.

(8) Iron and steel, not galvanized, of all kinds; iron hoops; white pine and spruce lumber, unworked; writing and printing paper, hydraulic cement, gold and silver, worked, which shall pay a duty of 10 per cent.

(9) Canvas and pack-cloth, jewelry, sewing and embroidery silks, all instruments with handles or adorned with gold or silver, presses; utensils or materials which serve for printing, except types; lithographic presses, all agricultural and industrial machinery, sewing-machines, coarse salt; steam, gas, electrical, or other engines and detached pieces for repairing the same; binding wire and twine, sulphuric acid, sulphate of lime, tin, zinc, and lead, which shall pay a duty of 5 per cent.

(10) Precious stones, unset, which shall pay a duty of 2 per cent.

(11) The following specific duties, to wit:

Wheat, for each 100 kilograms	$1.65
Starch, for each kilogram	.07
Coffee, for each kilogram	.08
Macaroni, for each kilogram	.07
Crackers and biscuits, for each kilogram	.09
Corn meal and wheat flour, for each kilogram	.04
Shelled corn, for each kilogram	.04
Tea of all qualities, for each kilogram	.30
Sugar, not refined, for each kilogram	.07
Sugar, refined, for each kilogram	.09
Common wine in casks, for each liter	.08

Fine wine in casks, for each liter	$0.25
Each bottle of wine of not more than 1 liter	.25
Each liter or bottle of beer or cider	.15
Alcohol in casks, not exceeding 30°, per liter	.15
Brandy, gin, anis, kirsch, or other liquors in casks, 25°	.20
Alcohol in bottles of 25°, per bottle of 1 liter	.20
Brandy, gin, anis, kirsch, or other liquors, 25°, in bottles of 1 liter	.25
Those of greater strength shall pay in proportion.	
Liqueurs and bitters in bottles of 1 liter	.25
Kerosene, per liter	.05
Sperm, stearine, and paraffine candles, per kilogram	.15
Stearine, per kilogram	.12
Playing cards, per gross	20.00
Wax matches, per kilogram	.50
Straw-paper for bags or for furring, paper bags, and colored paper, per kilogram	.12

All articles of weight which have two or more coverings shall pay the specific duty on the immediate covering, except tea in lead or tin, which shall pay according to the net weight.

ART. 2. The following articles shall be imported free of duty, to wit: White sand "de Fontainebleau," plows, iron and steel wire to number 13; sheep, horned cattle, pigs, and horses of heavy draught for breeding purposes; quicksilver, sulphur; boats of all kinds, rigged or unrigged; drills for mining up to 75 centimeters in length; stone-coal and charcoal; iron piping, not galvanized, of at least 75 millimeters in diameter; frames for casks of more than 2 kilograms, casks of wood or iron for tunning liquors, dynamite, shooks for casks, specifics for curing sheep scab; cases, boxes, etc., and the materials for making the same, for packing preserved meats; fresh fruits, guides and torches for mines; books, in paper or rustic binding; school-books, locomotives, fire-bricks, steam machinery for vessels, machinery and materials for electrical or gas light, furniture and tools of immigrants, coined money, materials of iron or steel for tramways and railways, machinery for the preparation of meats for export; gold in grain, bars, or dust; church ornaments, etc., vegetable fiber for the manufacture of paper, fresh fish, silver metal, plants subject to the law of October 26, 1888, special powder for mining, wheels with or without coupling for railways and tram-ways, seeds for agricultural purposes, sand, earth for molding, utensils and furniture for schools asked for by the governers of provinces or school-boards.

No article shall be exempt from duty unless expressly stated in the present or some other law of Congress.

ART. 3. Every kind of product, produce, or manufacture of the country shall be free of export duty.

By a supplemental law there is a duty of 1 per cent. additional to the rates above specified on all articles of importation, and in the settlement of duties in the currency of the country a premium of 15 per cent. is added as the difference between gold and paper.

WAREHOUSE CHARGES.

Warehouse charges for 1889 are as follows: Articles reckoned by weight shall pay 10 cents per month per 100 kilograms, gross weight; articles reckoned by literage shall pay 10 cents per month per 100 liters; articles reckoned by volume shall pay 6 cents per month per 100 cubic decimeters; articles reckoned by value shall pay 50 cents per month per $100 value; powder and other explosives shall pay 30 cents per month per 100 kilograms, gross weight.

REVENUES AND EXPENDITURES.

The ordinary revenues of the Argentine Republic for 1888 amounted to $51,640,400, against $51,582,060 in 1887—an increase of over $58,340. The following table gives the sources of revenue for 1888:

Sources.	Amount.	Sources.	Amount.
Importation	$36,451,125	Sanitary visits	$56,343
Warehousing	883,709	Timber-cutting permits	12,775
Stamped paper	4,507,467	Water-works	257,269
Post-office	1,043,988	Judicial deposits	81,181
Telegraphs	422,810	Tax on bank-notes	1,054,811
Light-houses	154,181	Port and mole dues	601,899
Interest on railway stock	509,890	Sundries	352,270
Interest on bank stock	2,889,603	Total	51,640,400
Seals and statistics	209,356		
Railways	412		

This is the largest revenue which has ever been collected in any one year in the history of the nation. The following table compares the revenues received during the last fourteen years:

Comparison of national revenues.

Year.	Amount.	Year.	Amount.
1875	$17,779,720	1882	$26,665,105
1876	14,036,424	1883	30,713,348
1877	15,318,364	1884	37,236,820
1878	19,067,000	1885	38,550,972
1879	21,660,863	1886	46,634,364
1880	20,247,487	1887	51,582,457
1881	22,057,500	1888	51,640,400

Import duties.—In former years the duties on imported merchandise were nearly all ad valorem, but more recently the Argentine Congress has fixed a specific duty on a large number of articles. The following table shows the amount of merchandise and the corresponding duties in each category of the tariff of 1888:

Category.	Amount of importation.	Amount of duty.
Merchandise subject to specific duty	$18,844,366	$12,443,052
Merchandise subject to 2 per cent	205,111	4,942
Merchandise subject to 5 per cent	3,512,523	336,742
Merchandise subject to 10 per cent	6,750,154	663,334
Merchandise subject to 25 per cent	55,096,098	14,646,584
Merchandise subject to 30 per cent	6,543,841	1,808,213
Merchandise subject to 45 per cent	11,841,446	3,217,467
Merchandise subject to 50 per cent	784,777	437,649
Merchandise subject to 55 per cent	1,045,288	610,236
Merchandise subject to 60 per cent	542,283	308,411
Total	105,165,887	34,476,630

As the total importations for the last year were $128,412,110, it follows that the value of the merchandise admitted free of duty was $23,246,223, or a little over 18 per cent. of the whole.

All export duties were abolished in 1888, and will probably never again be re-instated, as being a direct tax on the surplus products of the country.

General appropriations.—The appropriations for the support of the General Government for 1888 were as follows:

Department.	Amount.	Department.	Amount.
Ministry of foreign affairs	$1,269,138	Ministry of war	$7,905,229
Ministry of interior	12,813,021	Ministry of marine	2,769,234
Ministry of finance	19,283,532	Total	51,891,255
Ministry of justice, education, and worship	7,851,101		

It will be seen that these appropriations exceed the revenue by about $250,000, though the President, in his late message to Congress, states that, adding together the amount of the appropriations, the amount paid for exchange, the amount paid out under special laws, and the amount paid for floating debt, the total expenditures of the Government for 1888 were $76,081,347, or $24,431,947 more than the receipts, though he says that this excess has been met by the balance remaining over in the treasury from the previous year and "from resources created by special laws." He adds:

> These figures reveal that the national treasury was never before so easy, but, at the same time, that never before was made so evident the necessity of putting a stop to the system of voting the expenditure of money by special laws without providing the necessary means to meet them and to limit their duration.

THE FINANCIAL CONDITION OF THE NATION.

In regard to the general economic condition of the nation, it is difficult to give a clear or entirely satisfactory statement. That it is quite different from what could be desired is publicly understood. Matters are, however, so complicated with each other, there are so many wheels within wheels, all of which, in a different way, have been moving the nation on to the crisis which now seems impending, that no one assumes to know exactly what, one thing more than another, is the offending cause of the disaster. There are many gratuitous explanations vouchsafed. There is no question, however, that the increasing proportions of the public debt; the excessive issues of mortgage cédulas, the interest on which is ultimately guarantied by the nation or the different provinces; the greatly increased volume of a paper currency, which is declared legal tender, but for which no provision is made for its redemption in gold; and the increasing balances of trade against the country, which have required annually a large amount of gold or of exchange to meet them, have all conspired, separately and together, to produce the present unfortunate financial condition.

The amount of indebtedness.—The condition of the national debt and of the bonded indebtedness of the several provinces exhibits figures which are equally startling. In an official report by Señor P. Agoté on the subject of the public finances I find a full résumé brought down to the 31st of December, 1888. I give it as follows:

On account of—	Foreign.	Interior.	Total debt.
The Argentine Republic	$129,018,962	$207,322,480	$336,341,442
The different provinces	193,577,582	20,104,670	213,682,252
City of Buenos Ayres		24,044,752	24,044,752
Total	322,596,544	251,471,902	574,068,446

The debts contracted by the different provinces are all of very recent date, nearly all having been made within the last three years, and issued, ostensibly, for establishing national banks or building railways.

Increase of the national debt.—The arithmetical progression with which the national debt has been increasing during the last ten years will be seen by the following statement of the figures since 1870:

Year.	Public debt.	Year.	Public debt.
1870	$47,505,986	1880	$86,313,102
1871	84,265,110	1881	107,075,511
1872	80,012,729	1882	124,112,684
1873	78,480,297	1883	128,047,256
1874	77,185,464	1884	122,503,098
1875	82,877,423	1885	118,381,896
1876	86,813,567	1886	117,153,961
1877	82,230,897	1887	141,717,849
1878	80,649,083	1888	336,341,442
1879	77,738,976		

This increase in the debt of the nation, contracted in a time of profound peace and general prosperity, without any circumstances whatever of an extraordinary nature requiring the use of the nation's credit, begins to be regarded, and not without reason, as excessive and abnormal. Of course, some of the loans were for the building of railways and other public works. Much more of it has recently been issued in the form of national bonds, to be used by the provincial national banks as a deposit and security for the notes which have been put in circulation by them. It is a remarkable fact in the financiering of the country that a very large proportion of the bonds of the different provinces were issued and sold for the purpose of obtaining money with which to buy these national bonds.

For the service of the interest on the national debt, the amount set apart by the last National Congress was $16,024,852, being over one-fourth part of the entire revenues of the Government.

National bank circulation.—In regard to the issues of the national or guarantied banks, on whose shoulders a large part of the responsibility of the present disarrangement of business and of values most emphatically belongs, the following statement of the amount in circulation on the 31st of December last is also taken from Mr. Agoté's report:

Bank.	Circulation.	Bank.	Circulation.
National Bank	$86,546,800	Provincial banks—Continued.	
Provincial banks:		San Luis	$630,000
Buenos Ayres	65,563,720	San Juan	1,100,000
Cordova	15,205,065	Corrientes	2,000,000
Santa Fé	25,000,000	Tucuman	7,000,000
Tucuman	7,000,000	Mendoza	3,000,000
Salta	125,000	Catamarca	1,193,240
Entre Rios	8,500,000	Total	233,747,531
Santiago	2,070,000		
Salta	4,813,706		

The President, in his message, roughly states the amount at present in circulation to be only $158,000,000, but this is evidently too small. Indeed, there is considerable discussion just now to know exactly what the circulation does amount to.

Since the above statement was made several private banks, under a decree that otherwise their deposits would be taxed, were compelled to organize under the national banking law; but I am unable to give the amount of their circulation, though it must be upwards of eight or ten millions of dollars.

The gold premium and the currency.—The President, in his late message to Congress, argues that the issues of the national banks are sufficiently secured or guarantied by the deposit with the Government of corresponding amounts of national bonds, since, by the terms of the law, whenever it is considered expedient to redeem the notes, all that is necessary is for the Government to sell the deposits and pay the face of the notes with the proceeds, or to require the banks to return their issues and take back their deposits.

While this is true, however, it will be borne in mind that the law, unlike our own national banking law, makes no provision by which the banks are required at all times to be able to redeem their notes over their counters with gold.

At the time the national bank law was enacted there was a suspension of specie payments in the country, with a bank circulation of about $90,000,000. After the new issue of national notes gold began to harden, and on the 1st of January, 1888, the premium had gone up to about 40 per cent. Then came the decree allowing the banks to increase their issues to the present excessive proportions, and since then the premium on gold has continued to advance until now it is quoted on the Bolsa at 130 per cent., thus making the value of the paper dollar only equal to about 43 cents. The Govern ment, however, still refused to believe that the increase of the gold premium had any thing to do with the inflation of the currency, but assumed that it was a trick of the brokers, who gambled on differences, to the detriment of the country; and so, by decree and a posse of police, the Bolsa, or exchange, was closed to all transactions in cash or time gold, or from quoting it on the stock board.

It was assumed that if the public sales were stopped the premium would be arrested and ultimately reduced. It was not the Bolsa, but the increasing demand for gold, which gave an impetus to the advancing rate; and, in spite of the fact that the Government threw on the market nearly $30,000,000 of its gold reserves in an effort to satisfy the demand and ease the market, the premium kept on going higher and higher.

The President, with a fuller knowledge of the condition of affairs, then dismissed his minister of finance and restored Dr. Pecheco to that portfolio, a gentleman who is regarded as the ablest financier in the Argentine Republic. He must see that the situation is an unfortunate one, since with the expansion of the currency there has been a corresponding increase of the prices of land, cattle, and all other commodities, and it is difficult, if not impossible, to reduce the former without bringing on a general liquidation, if not collapse.

However, issuing an order to re-open the Bolsa to transactions in gold, he proceeded at once to submit to the National Congress two bills for the gradual contraction of the currency, both of which were immediately passed. The first law provides for the withdrawal from circulation of $41,000,000 of the notes of the National Bank, "to be effected, however, in such a manner as not materially to disturb values in general." Under this law the President has issued a decree providing that said withdrawal shall be in monthly surrenders of notes by the bank, the last one to be made on the 1st of June, 1891, thus running through a period of nineteen months.

The other law provides that "when the withdrawal of the notes of the National Bank shall be completed, *i. e.*, after the 1st of June, 1891, the executive shall proceed to amortize the notes of the other banks until the total paper issue shall be reduced to $100,000,000, the withdrawal to be made in proportion to the notes respectively issued by the several banks."

These two measures will, of course, require some time for their accomplishment; but, if they are strictly complied with, they can not fail very materially to improve the financial condition. They have already given a more hopeful appearance to the situation and have produced a feeling of reassurance in the public mind.

The issue of cédulas.—In the matter of the persistent issuing of cédulas by the mortgage banks, depending on the public credit for their value and circulating power, there is no doubt that they have exerted no inconsiderable influence in not merely weakening the credit of the nation and of the provinces under whose auspices they are put upon the market, but also in inflating the prices of landed property beyond what was genuine or actual, thus stimulating an overweening tendency to speculation and offering opportunities by all sorts of sharp devices for desperate ventures to get rich suddenly on loans and credits without the outlay of capital. The value of such property, estimated in paper money, has gone on increasing in an inverse ratio as the paper money depreciated in value; and in many cases the prices have been increased five, ten, and fifteen times for the purposes of hypothecation, the mortgage banks thus issuing cédulas upon it at the increased valuation, when, if brought to a forced sale, to which much of it will probably have to come, the prices would not meet the face of the cédulas. The following figures will show the rapid increase which, during the last few years of inflated prices, has been made in the issue of these cédulas, in most cases based upon unimproved lands:

Cédulas in circulation.

Cédulas of—	1886.	1887.	1888.	1889.
Buenos Ayres Mortgage Bank	$110,000,000	$160,000,000	$220,000,000	$300,000,000
National Mortgage Bank		50,000,000	75,525,000	164,000,000
Total	110,000,000	210,000,000	275,525,000	464,000,000

It was announced as a part of the programme of the present minister of finance that the issue of more cédulas on the part of the National Mortgage Bank had been stopped, and the executive was to exert his influence to stop further issues on the part of the Buenos Ayres Mortgage Bank; but even since this announcement the latter institution has thrown another large series upon the market. This, I trust, does not mean that, so far as the province is concerned, there is to be no cessation to the speculation which has been going on so recklessly for the last two years, and which has contributed to bring about the present high premium on gold. The explanation is attempted that these issues are justified by the immense immigration which is arriving here and seeking for lands in agricultural centers; but it is absurd to say that such immigrants are in a condition to buy lands at these inflated prices. Certainly, they are not able to pay for them, and if they buy on credit it will be all the worse for them in the end.

The general depression in securities.—Indeed, we begin to observe a shrink- ige in prices already in nearly all descriptions of stocks, bonds, and securi- ies. Some of these, which were booming on the Bolsa a short time ago, are iow scarcely quoted at all, while the very best—even National Bank shares—iave gone down over 100 per cent. The last issue of provincial cédulas are juoted at 62 cents to the dollar. Land, of course, is slower to feel the press- ire which is gradually coming upon the country, but even speculation in real state seems to have made a halt; and it is now not infrequently the case hat auction sales are adjourned without bid or bidder. It will not be long efore a gradual decline in the present figures for real estate will set in, and, oing down with the contraction of the currency, the price of land, as like- rise the price of every thing else, will find its proper level.

The sooner this period of depression fairly and gradually sets in the bet- er it will be in the end. That it is to come does not seem to admit of a oubt. Indeed, many are already preparing their affairs and setting their houses in order to receive the shock with as little disturbance as possible. A general depreciation in the present paper values is inevitable, and, until the equilibrium between gold and the business of the country is once more established, the perturbation in the financial atmosphere must of necessity continue to be felt. When the storm has passed over and the sky is once more clear of the clouds which now beset the commercial horizon, every department of trade and industry will be benefited by the change. All this may entail severe losses, if not absolute bankruptcy, upon some. It will be their misfortune if it does, but the general interests of the public will not suffer, and the country will be the better-off that it has taken place.

Indeed, the country itself has nothing to do with the present condition of affairs. The country is rich; the country is prosperous; the country is safe from any calamity which may overtake bad business methods and bad financial management. Its general interests are not involved in the fate of the stupendous speculations which are at last compelled to come down to a legitimate specie basis, and no national industry will be affected by the transition. Every gold dollar safely invested will still be a gold dollar safely invested; every bullock and every sheep upon the pampas will still be worth its true value in gold; every acre of land, whether it be in pasture or tillage, will still be a mine whose yield will be exchanged for gold; every laborer, every wage-earner will still receive the value of his services, but it will be in gold, instead of paper. While this reaction is taking place, while this economic change is being made from a currency to a specie basis, there is great need of prudence, retrenchment, and economy, not only on the part of the people, but also on the part of the Government; and it may be that both will have to make sacrifices in order to bring the business of the nation back to a normal, safe condition. But whoever may be caught, and whatever may be overwhelmed, in the transition which must be made, the country will continue to move forward in its great career of prosperity and progress. What is now transpiring is transitory, and, though it may be matter of regret, it is the usual experience of all new countries, and can not be cause for want of faith in the future. It can have no serious effect upon the ultimate destiny of the Argentine Republic, which to-day, next after the United States, offers, perhaps, as good inducements to those who are seeking new homes and as safe opportunities for the investment of unemployed capital as any country in the world.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, December 22, 1889.

CANADIAN-WEST INDIAN TRADE.

REPORT BY CONSUL JACKSON, OF ANTIGUA.

Salt cod, No. 2 mackerel, pickled and smoked herring, and spruce lumber have become articles in which a lucrative trade has been enjoyed between the Canadian provinces and the West Indies, and, as far as the United States is concerned, the enjoyment has been pretty well confined to the provinces for many decades.

A large fleet of sailing vessels has been busy in converting outward cargoes of the above-mentioned articles into inward cargoes of molasses, which has been consumed by the fisherman and the lumberman.

I have to report an invasion into this method of trade through the insinuative power of steam, as expressed in the establishment of a steam-ship line connecting Canada with this part of the West Indies and with Demerara, and known as the Canadian, West Indian, and South American Steam-ship Company. The initiative steamer *Portia* one day in January last landed a number of merchants and commercial travelers fresh from the provinces, who made themselves busy with the merchants of this port in introducing their goods and wares. They were traveling under happy circumstances, as the steam-ship company carried them quite free from expense.

In connection with these statements, I present some extracts from newspapers published in Dominica and St. Lucia, which give, to the best of my knowledge, authentic information respecting the venture. This move must be considered as a menacing one to many of the trade ventures in manufactured articles now in course of development between the United States and these parts; and, with a view to the introduction of new articles, has not our energetic northern neighbor, reveling in the advantages of free transit to manufacturers and others, made possible by a generous subsidy, shown us how to inaugurate trade?

CHESTER E. JACKSON,
Consul.

UNITED STATES CONSULATE,
Antigua, March 5, 1890.

THE CANADIAN, WEST INDIAN, AND SOUTH AMERICAN STEAM-SHIP COMPANY.

[Inclosure 1 in Consul Jackson's report.—From the Dominican, January 30, 1890.]

The steam-ship *Portia*, the first steamer of the above line, arrived on the 25th instant, and, after landing some cargo, proceeded next morning to Martinique.

We are informed by Messrs. William Stedman & Co., the agents of the above new line of steamers, that the company has been subsidized by the Canadian Government, and the steam-ship *Portia* has been chartered to run until their own steamers are ready. The company's steamers are to have a speed of 12 knots, and after the first year will run on schedule time. It is expected that the round voyage will occupy about six weeks.

The Canadian ports of call are St. John, N. B., and Yarmouth, N. S. Their outward and homeward ports of call will be Bermuda, St. Kitts, Antigua, Guadeloupe, Dominica, Martinique, St. Lucia, Barbadoes, Trinidad, and Demerara.

Several British American commission-merchants were on board the steamer and left orders for bananas, oranges, pine-apples, and limes to take back as samples.

The *Portia* is expected to be back here on her return voyage about the 8th of February. The steamer has excellent accommodation for passengers.

THE NEW CANADA LINE.

[Inclosure 2 in Consul Jackson's report.—From the Voice of St. Lucia, February 1, 1890.]

On Tuesday morning last, the 29th ultimo, the steamer *Portia* came into Castries. The *Portia* is the pioneer steamer of a line subsidized at $60,000 per annum by the Dominion Government to run between St. John, N. B., and Demerara, calling at Bermuda, St. Kitts, Antigua, Guadeloupe, Martinique, St. Lucia, Barbadoes, and Trinidad.

In the latter part of 1887 Senator McDonald visited the West Indies and British Guiana and reported to the Government the desirability of stimulating the trade between Canada and the West Indies. Last year Mr. Alex. W. Murdoch, of St. John, went over the same ground, and, by his energetic backing of the senator's views, was prominently instrumental in inducing the Government to grant the subsidy.

The company whose tender has been accepted is eminently qualified and prepared to provide a regular, efficient, and satisfactory service at an early date. Two large steamers have been ordered to be built in Great Britain. They will have a speed of 13 knots an hour and possess every convenience for carrying freight and passengers. In the meantime the *Portia* has been chartered to make a round trip monthly to the West Indies and back.

The new company will take representatives of Canadian industries, with their samples, free on a round trip in order to help to further trade. This is a most important matter, as, outside of fish and lumber, the people of the West Indies generally have but the vaguest idea of what Canada can exchange with them.

The regular line of steam-ships will be a long-needed link between two British colonies, than which no countries can exchange to better advantage their respective products, and can not fail to stimulate production in both by facilitating intercourse and creating a mutual demand. Collateral advantages, also, must surely accrue to us from this drawing closer to our own people. At a very crowded meeting of the foremost merchants of St. John, held on the 20th of December last, Mr. Robertson, vice-president of the board of trade of that city, speaking as to the means of developing the trade between the two countries, pointed to the exorbitant cable rates, and said that that was a question which should be taken up by the Canadian Government, and also by the imperial authorities. Then he touched on the banking facilities, showed how at present they were very poor, and thought it would be advisable to establish branches of the Canadian banks at some of these points. The rates of exchange charged by the colonial banks were simply ruinous.

If the Canadian connection have no other result for us than the bringing to terms the two monstrous monopolies which are fleecing the public at the rate of $2.55 a word from here to St. John on the one hand, and cramping the development of the country by exacting 8 and 10 per cent. interest for money on first-class security on the other, we shall never come back upon the hearty welcome among us which we offer our northern brothers, with sincerest admiration for their pluck and best wishes for the success of their enterprise.

NATIVE PERUVIAN COTTON.

REPORT BY CONSULAR AGENT COLUMBUS, OF PAYTA.

After five years of drought this province and state are naturally depressed in the way of commerce and all kinds of industry. The valley of Chira forms a favorable exception. The production of the valley consists principally of native Peruvian cotton.

Gossypium herbaceum peruvianum, an article used very extensively in Europe for the manufacture of woolen goods, with which it mixes readily, on account of its rough, strong, and long fiber, is produced abundantly throughout the state after the rainy seasons, which are periodical, and occur generally every seven years, and is cultivated always along the banks of rivers on lowlands irrigated by the overflow of streams. The plant is arborescent and perennial, and, after fully developing, continues producing cotton for five or six years in succession, provided there be some moisture in the ground, needing, however, very little of it on account of its deep rooting, thus reaching moisture at great depths. The system of cultivation of this plant is quite primitive, the seeds being planted by making holes in the ground with spades, without tilling or manuring the soil. The plant becomes developed and begins to bear cotton in dry and sandy soil about six months after planting, and about nine months in rich and wet land, continuing to yield at short intervals for five or six years more in succession. It is wonderful to behold the same plant in blossom, with pods, buds, and cotton, all at the same time, and giving a continual yield for the time above stated.

In certain seasons of the year, about every seven years, the rains are incessant here for about two months both in the interior and on the coast, and water descends in such abundance as almost to inundate the country. Large torrents stream down the mountain side, the valley of the Chira is deluged, and flat lands within it are turned into morasses, and morasses into lakes; in a word, the lowland becomes submerged and the accumulated mass of waters rush with great force down the central valley, which forms their only outlet. The valley, however, is wide, and the descent very gradual. The extent of the valley through which the water flows is from 3 to 4 miles wide, and though it is nearly 200 miles in extent, the valley for the whole distance is almost level. There is only sufficient descent, especially for the last 60 miles, to determine a very gentle current to the sea. Under these circumstances the great quantity of water proceeding from the mountains expands over the whole valley, and forms, for a time, an immense lake, extending in length across the whole breadth of the lowland.

The rains generally cease in March, but it requires from thirty-five to fifty days for the water to disappear and leave the land dry. As soon as that is effected there springs up from the whole surface of the ground which has been thus submerged most luxuriant vegetation.

The soil is wonderfully rich, and has been under cultivation by the aborigines from time immemorial, and its fertility is kept up unimpaired by the slime (*Limus terræ*) which is abundantly deposited during inundation.

Cotton is collected, when the pods open, by women and children, who are paid in proportion to the quantity collected, the prevailing rates being 40 cents for every quintal (100 pounds). Cotton is taken from the fields to the ginning houses, where it is cleaned and made into bales of about 175 pounds each. We have five of such establishments in this province, one in Querecotillo, on the east side of the river, about 50 miles in the interior, owned by an Englishman; two in Sullana, a city of about 4,000 inhabitants on the west side of the river, about 45 miles from the coast, owned by natives; and two in La Huaca, a village of about 1,000 inhabitants, on this side of the river, 21 miles from Payta, on the railroad to Puera; both are owned by foreigners, an Englishman and an Italian. The quantity exported annually averages from 65,000 to 70,000 bales, the gross value of which, at current prices here, is about $2,000,000 in current money (Bolivian silver dollars, equal to 68 cents each). Seeds are now also exported for oil making. Europe is the market for both products.

R. M. COLUMBUS,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Payta, Peru.

HOUSE FURNISHINGS IN MEXICO.

REPORT BY MINISTER RYAN.

Believing that the inclosed information will be of interest to certain industries in the United States, I have the honor to transmit herewith statistical tables prepared at the request of this legation by Mr. Javier Stávoli, chief of the bureau of statistics of the Mexican treasury department, showing specifically the importations by countries into Mexico of carpets and rugs and of window-shades, furniture, and wall-paper during the first half of the fiscal year 1888-'89, to wit, the six months ending December 31, 1888, the latest tabulated data on this subject in the Mexican treasury department; also a schedule of the rates of import duty levied thereon by this Government.

It will be observed that of the imports of carpets and rugs England furnished more than all the other nations combined, leading the United States more than 300 per cent.; and, on the other hand, of the imports of furniture the United States supplied nearly 170 per cent. more than all the other nations, leading Germany, which stood second, a little more than 100 per cent. during the period specified.

THOMAS RYAN,
Minister.

UNITED STATES LEGATION,
Mexico, February 5, 1890.

Imports of carpets and rugs into Mexico during the six months ending December 31, 1888.

Description.	Quantity.	Value.
Carpets and rugs of pure hemp or tow, or any other vegetable fiber unspecified, of plain, mixed, or figured texture, uncut:	*Sq. meters.*	
England	18,860	$4,809.00
France	2,254	517.00
Germany	292	61.00
United States	7,116	2,608.00
Total	28,522	7,995.00
Carpets and rugs of pure hemp, or any other vegetable fiber not specified, cut:		
England	634	359.00
Germany	351	175.00
United States	2,215	1,109.00
Total	3,200	1,643.00
Carpets of coarse frieze, of texture plain or crossed, or of beaten wool:		
England	25	5.00
France	36	58.00
United States	255	101.00
Total	316	164.00
Carpets and rugs of short-nap wool, uncut, warp of hemp or other material:		
England	40,175	22,679.00
France	127	187.00
Germany	42	95.75
United States	4,327	3,211.00
Total	44,671	26,172.75
Carpets and rugs of woolen shag, cut or velvet finish, warp of hemp or any other material:		
England	13,558	15,968.25
France	1,091	1,539.00
Germany	88	173.00
Spain	3	10.00
United States	2,866	2,922.00
Total	17,606	20,612.25
Carpets of wool, corded, hemp or cotton warp:		
United States	558	405.00
Grand total	94,873	56,992.00

SUMMARY.

England	73,252	43,820.25
France	3,508	2,301.00
Germany	773	504.75
Spain	3	10.00
United States	17,337	10,356.00
Total	94,873	56,992.00

Imports of window-shades, furniture, and wall-paper into Mexico during the six months ending December 31, 1888.

Description.	Quantity.	Value.
Curtains, transparent, painted in oil or distemper:	*Kilograms.*	
England	114	$95.00
France	335	347.80
Germany	1,222	1,039.50
United States	670	767.50
Total	2,341	2,249.80
Furniture of all classes of ordinary wood, painted or varnished or not, inclusive of furniture of cane or bent wood, with or without marble top or mirror:		
Austria	43,277	10,900.25
England	1,394	260.00
France	10,146	2,143.00
Germany	81,302	22,190.00
Italy	276	96.00
Spain	198	36.00
United States	172,274	43,124.31
Total	308,867	78,749.56
Furniture, all classes of fine woods, veneered or solid, and that covered with hide or any goods not containing silk, and with or without marble top or mirror:		
Austria	1,277	358.00
Belgium	67	18.00
England	1,410	262.00
France	9,493	3,047.00
Germany	13,707	5,173.00
Italy	259	166.00
Japan	109	40.00
Switzerland	248	60.00
United States	129,574	41,643.50
Total	156,144	50,767.50
Furniture of all classes and materials, with inlaid work or ornaments of shell, ivory, tortoise-shell, or metal not gold or silver, and that upholstered with silk cloth, or cloth containing silk, and with or without marble top or mirror:		
Austria	88	60.00
England	39	27.00
France	9,801	6,399.00
Germany	1,456	646.00
United States	5,660	2,682.00
Total	17,044	9,814.00
Paper of all classes and colors, not specified (this includes wall-papers, as well as all other papers not specified in the general customs ordinance):		
Austria	3,477	1,264.00
Belgium	178	20.00
England	19,215	5,811.00
France	62,336	25,502.00
Germany	38,390	10,110.50
Spain	60	4.00
United States	25,348	8,210.45
Total	149,004	50,921.95
Grand total	633,400	192,502.81

Imports of window-shades, furniture, and wall-paper into Mexico, etc.—Continued.

SUMMARY.

Description.	Quantity.	Value.
	Kilograms.	
Austria	48,119	$12,582.25
Belgium	245	38.00
England	22,172	6,455.00
France	92,111	37,438.80
Germany	136,077	39,159.00
Italy	535	262.00
Japan	109	40.00
Spain	258	40.00
Switzerland	248	60.00
United States	333,521	96,427.76
Total	633,400	192,502.81

Rate of import duty levied by the Mexican Government under its latest tariff of July 1, 1889, now in force, on furniture, carpets, wall-paper, and window-shades.

	Rate of duty.*
Furniture:	
Furniture of all classes of ordinary wood, painted or varnished or not, inclusive of furniture of cane or bent wood, with or without marble top or mirror, per kilogram	$0.15
Furniture, all classes of fine woods, veneered or solid, and that covered with hide or any goods not containing silk, and with or without marble top or mirror, per kilogram	.25
Furniture of all classes and materials, with inlaid work or ornaments of shell, ivory, tortoise-shell, or metal not gold or silver, and that upholstered with silk cloth, or cloth containing silk, and with or without marble top or mirror, per kilogram	.35
Carpets and rugs:	
Carpets and rugs of pure hemp or tow, or any other vegetable fiber unspecified, of plain, mixed, or figured texture, uncut, per square meter	.25
Carpets and rugs of pure hemp, or any other vegetable fiber not specified, cut, per square meter	.35
Carpets of coarse frieze, of texture plain or crossed, or of beaten wool, per square meter	.75
Carpets and rugs of short-nap wool, uncut, warp of hemp or other material, per square meter	1.10
Carpets and rugs of woolen shag, cut or velvet finish, warps of hemp or any other material, per square meter	1.60
Carpets of wool, corded, hemp or cotton warp, per square meter	.90
Wall-paper:	
Paper of all classes and colors, not specified (this includes wall-papers, as well as all other papers not specified, etc.), per kilogram	.20
Window shades:	
Curtains, transparent, painted in oil or distemper, per kilogram	.35

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* Average rate on furniture, 25 cents per kilogram; on carpets and rugs, 82 cents per square meter; on wall-paper, 20 cents per kilogram; on window-shades, 35 cents per kilogram.

AMERICAN GOODS IN GERMANY.

REPORT BY CONSUL-GENERAL MASON, OF FRANKFORT-ON-THE-MAIN.

It is generally known that industrial conditions in Germany, and particularly the relations between local manufactures and foreign commerce, have undergone important modifications within the last fifteen years. The manufacturing system, which has become so important in this country, may indeed be said to have been for the most part created since the consolidation of the Empire in 1870 welded the energies of the German people into a unit of creative force, directed by national laws and regulations. In some important respects, particularly in regard to operative labor and foreign markets for surplus products, the situation is still indefinite and unsettled. The exact place which Germany is to occupy as an industrial nation, self-sustaining and independent of all foreign products, except raw materials, is not yet clearly defined.

It is proposed in the present report to examine retrospectively the course of American exports of manufactured goods to this country during the past few years and to note the more obvious tendencies of the present market. What and how much of our American products do the Germans now need? Is the demand likely to be permanent, and do our exporters make all reasonable effort to comply with the preferences of the German people and the conditions of trade in the markets of this country? Finally, is the field here worth working, and if so, by what methods can the best results be reached?

The export of American manufactured goods into Germany on a large scale began about the years 1873 and 1874. There were special reasons which stimulated and directed this demand. Germany had become a united nation, with greatly enlarged needs and ambitions; her political and social relations with the United States were more friendly and cordial than with most of her immediate neighbors; and, finally, the inventiveness of Americans, the excellence of their machinery, implements, and methods, were well known and highly appreciated here. There were large numbers of German-Americans living in this country or returning periodically upon visits of pleasure or business, who were enthusiastic advocates of American machinery, tools, and processes of manufacture. In 1873 came the international exhibition at Vienna, where the exhibit of the United States, although inadequate and imperfectly organized, became the center of interest to a large number of German visitors. The importance of that exposition in the development of our trade with the German Empire can scarcely be overestimated. There is in Frankfort to-day an importer of American leather whose enterprise had its inception there. Being in attendance as the representative of an American tannery which made an exhibit of harness leathers, he was left one day in nominal charge of the entire department of that class, when a leading Austrian manufacturer of harness and saddlery came, and, after careful examination, not only purchased the entire stock, to be delivered at the close of the exposition, but gave a large order to be filled by special shipment from the States. Acting on this hint, the young man established an agency at Frankfort and built up a large and profitable business, which continued to expand until the new German tariff of 1885 doubled the duty on certain classes of imported leathers, and thus made the competition more difficult, although he still maintains an extensive and steady trade.

From 1873 to 1877–'78 Germany was a fertile field for American enterprise. Inventors, manufacturers, and merchants from the United States were welcomed and given every facility. An American brand on a machine or implement was its best recommendation. Depots and agencies were opened, principally by German-American citizens established in the States, for the introduction and sale of American goods. In 1877 there were not less than fifty of these establishments in full activity at Hamburg, Bremen, Berlin, Frankfort, and other points in the German Empire. Competition was sharp, and the natural consequence was that the business was soon largely overdone. The importers took too small account of the stubborn conservatism which characterizes the rural population and their slowness to adopt new implements and methods, even when they are superior to the old ones to which they and their ancestors have been accustomed. A great many things were imported in large quantities which it proved impossible to successfully introduce. Among several examples of this class may be cited axes and scythes and snaths. Any American who has seen a German woodman pecking away at the trunk of a tree with the clumsy, narrow, thick-headed hatchet which has been used here since the time of Charlemagne, or has watched a peasant swinging his short, broad-heeled scythe (which he sharpens with a hammer) attached to a straight snath, with its long, awkward, projecting handles, would naturally suppose that the wide, thin, accurately balanced American ax and light, bent-ash snath, with its long, slender grass scythe, would only have to be shown in this country to be immediately and permanently adopted. But the fact proved otherwise.

An American merchant here, who has been for fifteen years an extensive importer of machinery and implements, has told me his experience with scythes and snaths. He imported a quantity of the best American make, placed them with the hardware dealers whom he was supplying with hay and manure forks, etc., and awaited results. The mowing implements did not sell. They were so different in appearance from the ones already in use here as to be distinctly revolutionary. Finally, at Mayence, one day in early summer, he caused half a dozen to be brought to the market-place, where they were distributed gratis among the most intelligent farmers who had come in with their dairy produce. They examined the new scythes and shook their heads dubiously. Still, since the experiment would cost nothing, they promised to try. The following week brought another market-day, and the confident American was at the trysting place to hear the report. Back came the six peasants, each bringing his gratuitous scythe and snath. Not one had been able to use them, and they each declined to accept one even as a gift. These scythes are hanging in a Frankfort warehouse to-day.

Similarly with axes. There is a dealer here who purchased a dozen from an American agent eleven years ago, and most of them are still on his hands. Far different was the case with American cast-steel hay-forks, manure hooks, spades, and shovels. They were similar in form to those previously in use, but far lighter, stronger, and more accurately balanced. They for a time almost entirely supplanted the heavier, clumsier implements of home manufacture. The German makers promptly sought to imitate them, but they had no white ash for handles, and were forced to import those parts from the States. They thus succeeded in turning out fairly presentable imitations, which, being cheaper than the genuine, partially replaced the American goods and reduced the import demand. That was five or six years ago. More recently the great superiority of the American forks has prevailed, and the better class of agriculturalists, having had experience with a really good implement, are going back to the more costly American ones, the importation of which has visibly increased during the past two years. On that particular ground the home manufacturers are fairly beaten.

These samples are cited to illustrate the capriciousness and uncertainty of trade in this country. Who could have foreseen that American forks, hoes, and spades would achieve such success, while axes and scythes would utterly fail? The same uncertainty prevailed through a wide range of other imports from the United States, and within three or four years it had been pretty well demonstrated what things the German people would buy and what they would not. Sewing-machines, boot and shoe machinery, reapers, mowers, cultivators, and a large number of other machines and tools belonged to the first category, and these the German manufacturers set at work promptly to counterfeit and imitate, going so far as to copy in plain Roman letters the distinctive name, and even the labels of certain implements and machines. Of course, these imitations, although inferior, could be supplied so much more cheaply than the imported originals that many of them soon attained a large sale, and thus the German manufacturers have gradually regained the field which seemed for a time to be all but lost.

Thus, between the successful American goods, which the Germans could imitate, and the unsuccessful ones, which the people would not buy, the trade of the fifty importing houses, which were so prosperous in 1877, fell rapidly away. Their successful specialties were distributed among established German houses, and most of the original agencies have long been closed.

Meanwhile the intervening years have witnessed an enormous development in the manufacturing energy of this country. No longer content to supply merely their home demand, they have boldly entered the field as exporters of manufactured goods to South America, Mexico, Asia, Africa, and the islands of the sea. They have received from the Imperial Government every possible assistance and encouragement. Not only has their home market been protected by carefully devised and strictly enforced import tariffs, but steam-ship lines to new and distant ports have been subsidized and established, and colonial enterprises energetically pushed, sustained by a constantly increasing navy, for the primary purpose of giving German merchandise a new and permanent outlet.

The German exporters have pushed their opportunities in these new fields with characteristic thoroughness and energy. Not content with sending circulars in the home language to their consuls abroad, after the American plan, they have trained young men specially for service as foreign salesmen and merchants. They have gone to the new markets, opened stores, filled them with goods, studied the local tastes and needs, and tried their best to carefully comply with them.*

In all this, as well as in copying a successful invention or article of merchandise from abroad, the Germans are extremely clever and successful. There are good judges who consider German machinists and workers in iron and steel, as a class, superior to those of Great Britain in every thing except the construction of marine engines. However true or untrue this may be, the obvious fact is that the Germans as manufacturers have become formidable competitors in many important branches. They are often deficient in originality as well as in taste, but they make things which will serve their purpose for a cheap price, and they sell them cleverly and industriously. The whole German people have shared in the ambition to become a leading manufacturing and commercial nation, and to this end they have patriotically preferred the home-made article even when inferior to and hardly less costly than the imported.

For about ten years this industrial and commercial expansion continued prosperous and unchanged. But the year 1888 failed to show the usual increase in German exports, and 1889 revealed a falling off, which was all the more ominous from the fact that both France and Great Britain substantially increased their exports last year. The situation in this country is complicated by the greatly increased cost of coal and a demand for shorter hours and higher wages in keeping with the steadily increasing cost of living.

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* As an illustration of the system by which the Germans have increased their exports to Spain from 12,800,000 pesetas in 1878 to 82,960,000 pesetas in 1887, we quote from Kuhlow's German Trade Review the following translation of a recent report from the Austrian consul-general at Madrid, which may fitly serve as an object lesson to American exporters: "Throughout the year Spain is traversed in all directions by German commercial travelers with samples, who are looking out for customers for their employers. The wishes of the latter in regard to alteration of pattern, quality, packing, and forwarding are readily met, long terms of payment are conceded, and direct relations are even established between manufacturers and the smaller consumers and shop-keepers. Besides these travelers who leave Germany for Spain at certain intervals, German industry has numerous representatives settled in the large towns of Spain — in Barcelona there is certainly over a hundred — and many firms are represented by Spanish agents. These agents have complete sets of samples of the productions of their principals according to the exigencies of each particular trade, and frequently, indeed, entire stocks. The agents — they are usually for the whole of Spain, and many include Portugal — visit the local wholesale dealers or the smaller consumers of their articles either at short intervals (as, for example, the numerous representatives of aniline dye factories, dye works, and calico printers, all of whom have something of a stock), in order to meet the demand as soon as it makes its appearance in pressing cases from stock, or in longer periods (as in the case of season articles); and they travel over the whole country as required or in the separate provinces, the expenses being defrayed either by the manufacturers, or, when the agents bear the cost, a higher commission is given. The commission varies, according to the article, from 1 to 10 per cent. (*e. g.*, indigo, 1 per cent.; raw cotton, 1 per cent.; pepper and cinnamon, 2 per cent.; paper, 2 per cent.; machinery, up to 10 per cent.). The principal agent divides his commission with subagents in the provincial towns, and prices obtained above the limit are usually shared with the manufacturer. The large German manufacturers send travelers periodically here, notwithstanding that they have permanent agents in Barcelona, and frequently also in Madrid. The duties of such travelers are in visiting the customers to find out the suitability and activity of the agents here, and, being practically acquainted with the productive capacity of the factory they represent, to remove all those difficulties which is not possible merely by means of correspondence with the agent, and to discuss with the customers the practicability of any of the alterations they may desire or suggest. In the case of articles of large consumption the advantages reaped amply balance the cost of sending a special representative."

It is clearly seen that the methods of German manufacture must be improved by better machinery and more skillful management, and that the quality of their products must be improved without advancing their cost, in order to maintain their footing in foreign markets. This brings us to the first point in the second division of the present topic, viz: First and most important, they need the most modern and improved machinery for working wood, metals, leather, and textile materials. In many branches of manufacture they will be obliged to adopt the American system of classifying the various processes of factory work, by which each operative works constantly on a certain piece or part which, being identical with all others of its class, is interchangeable. The Germans are not yet up to making machinery or implements with interchangeable parts, but they must learn that system, and for that purpose they are in the market for every improvement that will simplify and cheapen manufacture and make it less dependent on skilled labor. There are to-day in Frankfort three establishments for the sale of American and English shoe-making machinery, and they are all prosperous. Let it be understood at the outset—and particularly by the Americans who will exhibit at the Electro-technical Exposition which is to be held in this city next year—that it is useless to bring here for general sale any invention that is not securely protected by a German patent. If it is valuable, it will be assuredly copied unless the patent is vigorously defended, not by the long and costly suit which is involved by an action for damages for infringement, but by the simple, direct legal process which enables a patentee to prevent a rival from making and selling the patented device.

As an example of the importance of defending patents, there may be cited the case of a certain meat-cutting machine, manufactured at Philadelphia, which was introduced in this country several years ago. This machine is of galvanized iron, compact, simple, cheap, and made in various sizes to suit the needs of families, meat dealers, hotels, etc. It was immediately successful and was promptly copied in this country. But the American makers came over, defended their patent before the courts, stopped the infringement, and now have a permanent and flourishing trade, which increases steadily from year to year.

On the other hand, a grating-machine, manufactured in Massachusetts, and equally meritorious, has been copied on a large scale by a firm in Berlin, and, as the patent has not been defended in this country, the German imitation has run the original and genuine machine out of the market.

Equally interesting and suggestive is the history of American stoves. Until a few years ago the German citizen warmed his dwelling with the stately wood-burning monuments in porcelain and tiles, which had undergone no improvement or substantial alteration for centuries. But wood has become expensive, and when railway distribution made coal abundant and comparatively cheap, the Germans—those, at least, in the cities and larger towns—went over numerously to the use of the most modern and highly improved stoves that could be found. These were largely of transatlantic patterns, and the influx to this country of American self-feeding "base burners" of every conceivable form, size, and pattern was astonishing. German women are, for many obvious reasons, more conservative than the men, and in their kitchens the American range and cooking-stove were generally found too elaborate and revolutionary; but for warming purposes, particularly in stores, offices, and other places of business, the American stoves had their own way, until their production in this country became one of the most important new fields of German industry. There are now not less than twelve large establishments in this country devoted to the manufacture of stoves, copied, in all essential respects, from American patterns. As the latter have to be transported 4,000 or 5,000 miles, and imported into Germany under a duty of $2.50 per 100 kilograms, there is a natural disparity in price of 25 per cent. in favor of the German-made stoves. But in workmanship, durability, neatness, and accuracy of adjustment and fitting the imitations are distinctly inferior to the originals. None of the German stove-founders have yet been able to attain the high standard of workmanship which is found in the work of the best American makers, and many people of independent means still prefer the imported stoves, even at their high price. There is one dealer in Frankfort who sells annually several hundred of the highly improved, nickel-decorated stoves made by a company in Detroit, and there is still a steady sale for this class of goods in all the cities and large towns of Germany. In conversation with this merchant, I asked what defects, if any, he found in the Detroit stoves which might be corrected, and thus render them more generally acceptable to German purchasers. He replied, with some hesitation:

> Well, about the only fault our customers find is that the American stoves are ugly and inartistic in appearance. They admit that in point of mechanical workmanship, the nice fitting and adjustment of parts, these stoves are incomparable, but their round and oval forms jar upon our æsthetic sense. "The Americans," they say, "are unrivaled mechanics, but they lack the general and thorough education in drawing and modeling which, in this country, forms public taste and makes German working-men artistic as well as skillful."

On being asked to indicate among his stock a stove of approved German model, he pointed to a large square adaptation of the American base burner made at Stuttgart or Nuremberg, and having on its panels classic winged figures in bass-relief, finely modeled and admirably cast. It differed from the American type mainly in being square and having but two small mica windows through which the fire would be visible. To my suggestion that a stove is, after all, a thing of utility, not decoration, and that as to the question between a plain geometrical pattern and winged seraphs on a stove-plate there might be honest differences of opinion, the reply was: "Yes; but German taste prefers the seraphs, and we must take it as it is."

Among the other articles which have been so successfully and cheaply copied from American models that there remains only a limited sale for the original imported goods are clothes-wringers, alarm-clocks, and machines for cutting up ice. Curiously enough, ice-cream freezers have thus far held their own against imitation. A certain model from Philadelphia has a large sale in this district. Another important line in which there would seem to be a favorable opening in this country is that of furniture, provided, always, that its introduction is managed in the right way. The general growing prosperity of the German people has created an enormous demand during recent years for household furniture which makes some pretension to elegance of form and finish. German furniture is generally old-fashioned in model, heavy, and often inconvenient, and, by reason of the high price of wood and the large proportion of hand-labor employed in its manufacture, it is always costly compared with American machine-made furniture. Prices here are from 50 to 150 per cent. higher, and, in the opinion of competent judges, there is a promising opening for an enterprise something like the following: Let any large furniture-manufacturing firm in the United States send a competent agent over here to study German styles, prices, and conditions, and then establish an agency at some convenient point where the furniture can be received, set up, finished, and polished by the hand-labor that is far cheaper here than in America.

The material should be finished as far as machine work can go, and then shipped flat, in crates or jute wrappings, by sailing vessel to Rotterdam, and thence up the Rhine by barges, or direct to a German sea-port like Bremen or Hamburg. Ship space and freight would be thereby economized to the utmost point, and, what is still more important, the unfinished material would be entitled to entry as raw wood-work at a low rate of duty, while the tariff on finished furniture is three times greater—sufficient, in addition to its bulkiness as ship freight, to make its profitable importation here impracticable.

There are firms in the Western States of the Union who make, on an enormous scale, tables, buffets, and other dining-room furniture; there are others whose specialty is desks, book-cases, etc., and others who are devoted to bed-room furniture. If, now, one, or several of these combined, should feel disposed to establish an agency here under the conditions above suggested, the plan would utilize the cheap lumber and machine work of the United States, the minimum of freight and import duty, and the cheapest hand-labor for setting up, polishing, and finishing. In this way American furniture could be delivered in large quantities, at minimum cost, in a country where prices are so much higher that a good profit would be apparently assured. Of course, some deference would have to be paid to German tastes and needs, but, in respect to furniture, they are more advanced than in either building or heating arrangements, and compliance with their ideas would be comparatively easy. The success of the Singer sewing-machine in holding its leading position against all rivals has been imitated during recent years by another American product—the Estey organ, which, by virtue of merit and good management, is now a popular feature in most German music stores and has a large sale.

In respect to certain articles of daily consumption, importations from the United States are steady and important. American tobacco and cigarettes are staple throughout Germany, and canned goods are steadily growing in favor. There is, however, a curious conservatism among importers and consumers of such supplies in respect to the brands of American canned meats, fish, fruits, and vegetables, which I have taken some pains to understand. Outside of the products of five or six leading packers, whose names are known everywhere, it is almost impossible to sell American canned goods in Germany. The reason for this is that on several occasions agents of new firms have come and taken large orders, which were either not delivered at all or were stale, inferior auction goods, more or less unsalable.

This brings us to another part of the subject, viz, the inevitable bill of complaints, which the American consul always has to hear when engaged in commercial missionary work. Putting aside all merely general and petulant grievances, it is found that there are tangible grounds of complaint against very many American exporters on the following points:

(1) *Hardness of terms.*—They insist upon cash against railroad receipts or shipping bills at sea-port, while English, French, Belgian, and Austrian manufacturers are glad to sell to German importers on three months' time. It is perfectly easy to ascertain the standing and responsibility of any firm doing business in this country, and with proper care losses through bad credits should be trifling.

(2) *Bad and insufficient packing.*—American manufacturers uniformly pack machinery or other goods for shipment to Europe, Australia, or South America just as they would to send it by rail into an adjoining county or State, and consequently American goods landed after a long sea-voyage are often so dirty, rusty, and damaged as the result of inefficient packing that the loss from such deterioration consumes the profit or entails a loss to the importer. All this has been told and retold a thousand times in consular reports from every quarter of the globe. The pity and misfortune is that it is still too often true.

(3) American shippers are uniformly careless and stubborn in respect to special directions from abroad about classifying and packing. It is well known that import duties in this country are assessed upon the weight of merchandise, so many marks per 100 kilograms. The rate per 100 kilograms varies greatly, according to the material of which an article is composed and the degree to which it has been worked, and it is therefore often a point of great economy to have the goods of each class packed separately, because, if merchandise of several grades is packed in the same case, the contents must be all taken out at the German custom-house, weighed and repacked separately, otherwise the whole lot is assessed at the rate applicable to the highest dutiable article that each case contains. In one instance within my knowledge neglect of instructions in packing shoe machinery entailed the payment

of 70 marks duty per 100 kilograms on portions of several machines which were actually dutiable at only 3 marks. To unpack and repack goods in this way at a custom-house is tedious and difficult, and, what is still worse, many goods thus delivered in broken packages lose from 5 to 10 per cent. of their market value. Greater care on the part of our shippers to follow precisely instructions in this respect would obviate many just and serious complaints.

(4) American exporters are very generally careless about giving exact information about the bulk and weight of their goods. The German merchant or manufacturer, let us suppose, hears of an American fixture or machine which he would like to try. He ascertains from the price-list what its cost would be on board a freight-car at the place of manufacture. Before he can tell what it will cost set down at his own door, he must know its smallest bulk, by which to estimate the cost of sea-freight, and its weight, from which to calculate duties and interior transportation. He writes for exact information on these points, and very often receives a reply praising the article, describing the growing demand for it in America, and perhaps offering a discount from the list price, but nothing about weight or bulk.

(5) Cases of actual dishonesty, in which firms receiving cash orders for machinery or other goods ship old, inferior stuff which is unsalable at home. A case in point is related here in Frankfort. A company near this city ordered through a Frankfort house a steam-engine of particular weight, pattern, and speed adapted to its purposes. The engine was of a special American type renowned for economy in fuel. It was ordered from a general dealer in machinery at Philadelphia, and the price paid was that of a new engine. It came, was set up, and so utterly disappointed all reasonable expectation that the Frankfort importer had to take it back, pay the expense of the removal, and refund the price. On examination it proved to be an old, worn-out machine, the valve-seats and other concealed points of friction being so worn as to be utterly unserviceable. On scraping the painted portions layer after layer of paint of different colors was found, showing that the engine had been painted again and again during its years of service. One such incident makes a great deal of talk, and the importer referred to not only lost about $2,000 by the transaction, but has never been able to sell another American engine of similar type in this region.

Another complaint is that in sending machinery abroad one or more small but essential parts are omitted, and the instructions given for putting them together, operating, and taking care of them are incomprehensible to German machinists. The fact should be realized that mechanics in foreign countries lack the ready, ingenious intelligence which characterizes the better class of American workmen, and which enables them to think out and unravel a difficult situation. The foreigner knows what he has been taught and has done, but very little more, and he is not fertile in expedients. Take, for instance, the apparently simple matter of making steam and running a stationary engine. Every experienced person knows that a really competent

American engineer-fireman will, by skillful firing, oiling, and management, get from 15 to 30 per cent. more work out of his engine than will be done by a native engineer anywhere in continental Europe, and American engine builders, estimating for plants to be set up abroad, should take careful account of this disparity. All instructions and descriptions should be made simple but thorough and complete down to the smallest detail, as though intended for a novice.

It remains to be said, finally, that there is no apparent probability that the decree which excludes American pork products from Germany will be modified or withdrawn. It is true, no doubt, that some American hams and bacon are imported under Dutch and English brands, but this evasion of the law is of too trifling importance to affect market-prices.

Whether the importation of live beef cattle from the States can be made profitable is as yet uncertain. The experiment has been tried during the past six months by cattle dealers at Mayence and at one or two points in northern Germany, but the results do not appear to have been satisfactory. The voyage is long, and the losses from death and exhaustion during an ordinary crossing vary from 5 to 10 per cent. of the whole number of animals shipped. In cases of protracted heavy weather, such as often occurs in late autumn and winter, this loss may reach 15 or even 20 per cent. Then, too, it is complained, rather curiously, that American beef cattle are too fat, and the farmers, who fear this new competition, protest that pleuro-pneumonia and other contagious diseases are rampant among American herds and invoke protection from such infection. Altogether, the Germans seem to treat the whole question of American meat and animal imports in a somewhat captious spirit.

It is also true that something of the cordiality and good-will toward American merchants and merchandise which was noticeable here a few years ago has died out and been replaced by a certain jealousy and suspicion. The charge of having copied American specialties has been harped upon in print until many Germans have grown sensitive and resentful about it. But the more important fact is, that our great Republic, with its unequaled resources and capabilities, is the competitor whom Germany, like France and Great Britain, most dreads in the future struggle for control of foreign markets, particularly those of Central and South America. It is, perhaps, only natural that all this should influence adversely commercial sentiment in Germany toward our country and its products. The German Empire, like the other manufacturing nations of Europe, is deeply and earnestly engaged in looking after its own interests, and an important article in its creed is to sell as much and buy as little as possible abroad.

FRANK H. MASON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, March 20, 1890.

No. 115—8.

THE DIAMOND INDUSTRY OF AMSTERDAM.

REPORT BY CONSUL ECKSTEIN.

The diamond industry and trade experienced a great change in an unfavorable direction in the course of last year. The owners and proprietors of the large and small cutting establishments, of which there are at present a great number, as well as individual workmen—clovers, cutters, and polishers—who purchase, manipulate, and finish the rough product on their individual account, and all others engaged in the industry, have had a hard time of it during the past twelvemonth. In short, the formerly, at times, so exceptionally prosperous industry of producing the brilliant out of the rough material witnessed a regular revolution.

After the discovery of diamonds in South Africa, from eighteen to twenty years ago, the proprietors of the then existing, but comparatively few, manufacturing establishments here, as well as the workmen in any way engaged in the turning out of the finished goods, amassed fortunes in many cases and in a brief period of time. This so remarkable state of affairs connected with the industry in question could not well, and did not, last many years.

The number of factories speedily increased and the attention of hundreds, if not thousands, was attracted, and who learned the trade of either cloving, cutting, or polishing, and thus speedily augmented the then existing number employed in those occupations. Thus the fortune-making period was soon affected, and terminated altogether after a few years.

During the past ten years or more, and up to a year or two ago, the business here of producing the finished goods became greatly extended and the industry generally assumed greater dimensions and importance. The demand for the goods kept step more or less regularly with the finished goods put upon the market. Prices fluctuated from time to time, but at no period very violently or suddenly, so that at all times fair profits could be realized by the proprietors of the large and small cutting establishments, and workmen who turned out their own goods obtained good paying returns upon their investments and for their labor, whilst other workmen employed by the manufacturers always made good living wages. This so satisfactory condition of things came rather suddenly and unexpectedly to an almost complete stop in the course of 1889.

The operations in all diamond factories in this city were greatly curtailed during the year, great numbers of employés discharged from time to time, and many of those retained employed only part of the time. The wages paid for any and all classes of work were at considerably reduced rates compared with what was paid for corresponding work in former years. Workmen handling their own goods, of whom there are a very large number, could not dispose of them at such rates as would leave them even a fair compensation for their labor and any thing as interest upon their investments.

It is easily explained what it is that has brought about so great and so unsatisfactory a change in all these matters. As by the discovery of diamonds in South Africa great benefits resulted to a goodly number of this city's population and indirectly to Amsterdam itself, so it would appear that now great injury is resulting from the co-operation of a certain syndicate which has and does at present control the diamond mines of that section. This syndicate consists of a certain number of firms and persons residing in London, and it extends or limits the output of the mines at its will or pleasure, placing upon the market only such quantities of the "rough goods" as will command whatever price they see fit to ask for it. The rise in the prices of the "rough" as they stood at the close of the year 1889, as compared to what they were about a year before, amounted to over 75 per cent., as I am credibly informed. In the meantime all classes of finished goods have also advanced, but by far not so much as those for the rough material.

It is in consequence of this disproportion in the prices exacted for the rough material and those for the finished goods that the diamond industry and industrials find themselves at the present moment in the suffering condition above described. This abnormal state of things is likely to continue to prevail until either the prices for the rough material are reduced or somehow brought down, or until those for the finished goods still further advance without at the same time affecting the usual demand for the article.

In the meantime the so very unfavorable situation of so many of the diamond operatives attracted considerable attention towards the close of the year. This was not to be wondered at, as the impoverishment of so numerous a class of the city's population deserves to be, and is regarded as a most regrettable matter. It was in consequence thereof that one of the principal banking houses at that time here offered financial aid to workmen and manufacturers on a small scale who had finished goods on hand for which they could not realize such prices as they were actually worth or as would secure to them reasonably fair remuneration for their work in addition to the original cost of the rough. This relief was offered to be extended in such form and on such conditions as were believed would accomplish the intended and desired purposes, to a certain degree at least. This assistance was proffered by the bank on or about December 1, and the actual terms upon which it was made are, as explained to me and briefly stated, as follows:

The bank makes advances to the parties concerned in sums within a certain close margin of the previously (through experts) ascertained market value of parcels of finished goods, to be deposited with or pledged to the bank. The goods can at all proper times be shown to intending purchasers, and when sold the sums advanced against them must be refunded, inclusive of the interest due in each case, and which, as I am informed, is chargeable at the rate of 4 per cent. per annum.

However, as stated to me, transactions or loans under this arrangement were but few and unimportant during the month of December, but it was anticipated that if the general situation would not soon change they would largely increase during the early part of the current year.

EXPORTS TO THE UNITED STATES.

The following statement exhibits the value of the direct exports of diamonds and precious stones from Amsterdam to the United States during the past five years, or from 1885 to 1889, inclusive, as ascertained from certified and recorded invoices at the consulate, viz:

1885	$347,527.33
1886	1,378,542.77
1887	1,842,705.69
1888	3,141,024.57
1889	3,374,465.61

It will be observed from the above that the higher price which the article commanded during the past year did not deter American buyers and importers from making purchases and shipments as extensive as in former years, but that on the contrary they increased even during the year 1889, as compared with the year before.

But the important fact that large quantities of diamonds purchased in this market find their way to the United States without invoices for them being presented or legalized at this consulate must not be omitted to be stated, and that therefore it is impossible to say what the actual value really is which represents the trade in the articles in question between this city and the United States.

The character of the goods, little bulk and great value, prevents all control or the exacting of the production of all invoices for verification at this consulate. As it is, I can only say that I believe that very considerable quantities of diamonds intended for the American market when purchased are sent or taken to London and Paris, and invoices for them, presumably, legalized at the consulates-general at those places.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, January 7, 1890.

DISTRESS AMONG THE DIAMOND CUTTERS.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

I have the honor to refer to my report upon the "Diamond Industry and Trade," dated January 7, 1890, and in illustration of the very depressed and deplorable condition of the same I transmit herewith as supplemental to the said report a translated copy of an appeal published by the press of this city at the instance of the Netherlands Diamond Workers' Association, at Amsterdam, to the charity of the public for the relief of the impoverished and suffering diamond workers. The appeal speaks of seven thousand diamond workmen being at the present time without occupation and in want of the necessaries of life, such as proper food, clothing, and shelter.

The petition needs no further explanation, and any comments thereupon on my part I consider uncalled for, further than to state that the call surely will arouse the sympathy of the public, and will be responded to, but to what extent would be difficult to say.

It may not be out of place to observe here, that it seems to be peculiar and noteworthy that a class of workmen employed in the production of an article of luxury such as the brilliant is should at any time be found in the condition such as described in the appeal of which I send a copy.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, March 18, 1890.

THE NETHERLANDS DIAMOND WORKERS' ASSOCIATION, AMSTERDAM.

[Inclosure in Consul Eckstein's report.—From the Algemein Handelsblad, March 16, 1890.]

FELLOW CITIZENS: By the Netherlands Diamond Workers' Association, of this town, which consists of six hundred members, our attention has been called to the sad condition in which, by consequences beyond their control, thousands of families are placed whose heads, up to the present, had been earning their bread as clever diamond workers. No less than seven thousand of these workmen are without work, and at present there is no sign of a change for the better. Those who materially assisted in the prosperity of our town are in want of the necessaries of life — proper food, clothing, and shelter. Most of them are unfitted to gain a livelihood in any other way.

We therefore call upon you to assist them by your gifts till better times dawn. We ask every one, of whatever religion, because we know that beside the opinions which divide us is the humanity which unites. It is hoped that also many outside Amsterdam will add their gifts to those of the citizens, for this town never was behindhand whenever assistance has been required in any part of the land.

A committee will superintend the judicious distribution of the money.

HOUSE FURNISHINGS IN ECUADOR.

REPORT BY CONSUL-GENERAL SORSBY, OF GUAYAQUIL.

IMPORT DUTIES.

The import duty on furniture is 7 cents, United States gold, per kilogram, with 20 per cent. added; on carpets, 18 cents per kilogram, United States gold, with 20 per cent. added; on wall-paper, 8 cents, United States gold, per kilogram, with 20 per cent. added. All duties are on the gross and not the net weight. Window-shades are not used in this country.

FURNITURE.

As to furniture, the major part imported, of the lighter variety, is of Vienna bent wood. A set containing two sofas, two rocking and twelve ordinary chairs cost in the market here about $100, United States gold. A few families import direct from France.

The American manufacture comes next to the Vienna bent wood in point of quantity imported and in general use, among which are bed-room sets (brass and iron bedsteads only), office desks and chairs, and a cheap variety of cane-bottom chairs. Of this latter there are now imported and sold in this market about 700 dozen per annum at about $15, United States gold, per dozen. The Vienna bent-wood furniture comes from Germany, and this class of furniture, with the cheap cane-bottom and office chairs of American make, is the only "ready stock" kept. When a sale for other furniture is effected it is through orders.

The Vienna bent wood seems to be freest from the ravages of a most injurious bug or worm peculiar to this country, and the American oak seems to be especially attractive to the pest. Rattan would, I think, be a good substitute for the oak.

The possibilities of a market here are great. Guayaquil is a city of about 40,000 population. The import and export business of the Republic is done through the Guayaquil custom-house, and most of the business of the interior passes through the mercantile houses of Guayaquil, and yet there is not a single house in Guayaquil dealing exclusively in furniture, nor does a single house in the Republic keep a stock of furniture.

CARPETS.

England enjoys a monopoly in the importation of carpets. Germany, France, nor the United States seems to make the least effort to either control or divide this trade with England. The kind of carpet in demand and use is a good quality of Brussels, and it sells here at about $1.50, United States gold, per yard.

WALL-PAPER.

England and France import about 90 per cent. of the wall-paper, the United States about 10 per cent. The kind in general demand is the white, which sells here at from 20 to 30 cents, United States gold, per roll of 9 yards. In colors, bright and fancy is preferred, and the local price ranges from 30 cents to $1.50, United States gold, per roll of 9 yards.

AMERICAN VS. EUROPEAN TRADE METHODS.

In seeking to open up trade with Ecuador it should be borne in mind that European merchants and manufacturers extend much more liberal terms than our merchants and manufacturers seem disposed to give. The usual terms given by European firms are four and six months' sight-draft, drawn through some bank. And again, merchants in the United States do not pack as well and at the same time as economically as the European. All duties are on the gross weight, and for that reason it should be a special study to pack simply and lightly, and yet so as to thoroughly protect the articles packed.

But there are other causes affecting our trade in this country to our very serious detriment—the time required in transportation, the high rate of transportation, and the high rate of exchange. European transportation is more rapid and reliable and cheaper, and the rate of exchange is lower.

In shipping to this country care should be taken to secure the certificate of the Ecuadorian consul, if there is one at the place of shipment. This precaution would expedite matters very much in some cases.

Merchants of the United States might as well realize in the beginning that, though they flood this country with circulars and catalogues until the whole country is covered over a foot deep, it can be of no avail against the drumming system of England, Germany, and France. Circulars and catalogues can serve but one purpose, and that is supplemental. The merchants of this country have been dealing in Europe for years. They come in touch with the representatives of the great establishments of Europe. They are not met with the stereotyped phrase which the merchants of the United States seem to have framed especially for them—"Terms cash; New York exchange." They are not treated to a deluge of circulars; they meet intelligent men, who talk to them, and who present samples, that styles, colors, sizes, and patterns may be compared and selected.

The European merchant seems to be very well satisfied with the risks to be run in dealing with the people of this country. For years they have controlled this trade, and they seem in no wise disposed to give it up; and merchants and manufacturers of the United States may be assured that until they are disposed to meet the European face to face and dispute every inch of the ground the European will continue to control the trade, not only of Ecuador, but of South America, inasmuch as the conditions are similar. As to furniture especially and Ecuador in particular, I think it very possible that it would be found satisfactory and remunerative to select some first-class house here and consign in large and attractive assortments.

WILLIAM B. SORSBY,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Guayaquil, February 8, 1890.

THE SAN BLAS DISTRICT IN COLOMBIA.

REPORT BY CONSUL VIFQUAIN, OF COLON.

Reading over some official documents, I found a report from the prefect of this province, in which is located the San Blas district, written August 22, 1889, and addressed to the governor of the national department of Panama. The province of Colon being co-extensive with my consular district, I deem it my duty, if for no other reason, to furnish you that part of the prefect's report which relates to San Blas:

Between 3° and 4° 52′ longitude west of the meridian of Bogota, and latitude 8° 40′ and 9° 35′, from Point San Blas to Cape Tiburon, extends the littoral of the Caribbean Sea. Almost parallel with this littoral and not far from it is a chain of the Andes Mountains, which, owing to its depression as it advances towards the center of the isthmus, contains no peaks of great altitude. The zone contained between the crest of this chain of mountains and the littoral of the Caribbean Sea is generally known by the name of the San Blas coast, and the inhabitants of that region, all natives, are known as the San Blas Indians.

Along this coast can be found innumerable bays and radas (anchoring grounds), among which are some extensive and good land-locked harbors, fit for most any vessel. At no great distance from this coast a large number of islands, mostly small and every one of them a regular grove of cocoa-nut trees, are situated. They are two hundred and forty-seven in number, and are known as the Archipelago of the Mulatas (mules); they form a natural wall or break-water, so to speak, against storms and currents, and are inhabited by the natives in preference to the mainland.

A number of rivers running down from the mountains not only assist in irrigating and fertilizing the bottom lands, but also offer great facilities to the smaller craft for inland navigation, thus enabling communication for traffic and general intercourse to be made easy between the Indians on the hills with those on the coast and on the islands, and *vice versa*.

Nature has been extraordinarily prodigal to this section. The very finest kinds of timber for building, for cabinet-work, and for dyeing purposes are to be found there. It is especially rich in palmas, which produce cocoa-nuts in very large quantities and of the very best kind. Agriculturally speaking, the soil is excellent, but the means resorted to for cultivation are very primitive. Rice, corn, yuca (Adam's needle), yams, plantains, sugar-cane, coffee, cacao, cotton, and all sorts of tropical fruits grow there spontaneously and in large abundance. The animal kingdom is represented by all the species living in this latitude, thus furnishing the natives with an abundance of meats, whilst in the many mountain streams are to be found the very choicest of fishes.

As for minerals, the section is proverbially rich in precious metals. It is known that the Cordillera, running through the San Blas coast, belongs to the western range of the Andes, which, in the state of Cauca and to the very boundary of the San Blas district, is, so to speak, one continuous mine of gold and silver. This chain has been worked right up to San Blas, in a primitive way it is true, but with remarkable results. The fabulous riches of these mines and of the Dariens were known to the Indians even before the conquest by the Spaniards, and it is believed that the same rich mines are to be found in the San Blas mountains. These Indians are so well aware of this that, in accordance with traditions of their own, they refuse to work them, for fear that if the treasures were exposed, the white race of the present would come down upon them like the Spaniards came down upon their ancestors in other localities of this region.

The heroism without equal of these Indians in fighting for their independence and for their mountain homes ever since the Spaniard first set foot on this soil has done much toward reducing their numbers, and has also done much toward keeping secret the mineral riches of their present and last abode.

Travelers and explorers of the San Blas district are all agreed as to the existence of coal mines there. The extraordinary importance of this mineral, from which immense wealth can be derived under ordinary circumstances, has still greater and further importance attached to it when it is considered that sooner or later an interoceanic canal will be built within 50 or 60 miles of it. Under such circumstances it is incalculable what an amount of it will be needed, not only for reasons of navigation and locomotion, but also for the needs of the many and great industries that will of necessity spring up along the greatest modern thoroughfare of the world.

The most reliable information gives the population of the San Blas coast district, the islands included, at 30,000 souls. They are divided into two classes; the less civilized are those living on the hills, the more civilized those of the islands and coast. The first number some 20,000, more or less, disseminated in the forests and groves in the mountains; they live by hunting and fishing, in both of which they excel, and have a small trade with their brethren of the coast, who furnish them with arms, salt, powder, cloth, and other necessaries in exchange for skins, hides, etc. The Indians on the coast and on the islands are relatively more civilized only because of their commercial relations with the foreigners who for the last forty years frequently visit them for trading purposes.

The San Blas Indian is of small stature, wide of body, of strong constitution and great muscular strength; they are copper colored, with hair jet-black, straight, and shiny, rather intelligent, most daring hunters, and very skillful fishermen. They are also remarkable for their skill in handling their sailing craft among the breakers and the surf. Men, women, and children, all of them, take to this as if it were a natural gift. He is very pacific of disposition, yet brave to a fault; and the pacific character of his disposition is rather strange, too, taking into consideration the most cruel treatment he has been subject to during fully one hundred years of the conquest, in fact, ever since his ancestors were first discovered. He is honest and true. Masters of vessels and traders who have done business with the San Blas Indians recognize them as entirely reliable, his vow being as good as a bond. Oftentimes masters of vessels and traders allow them credit for six or eight months, at the expiration of which time their promise is invariably fulfilled. They are exceedingly jealous of the purity of their race; no stranger is safe in their midst if he undertakes to pay too intimate attentions to the women of the tribe.

The commerce of this coast is of great importance and is going on without governmental interference. Vessels come and go as they please without any formalities; they buy, they sell, they trade, without paying one cent to the public revenues. Constantly vessels of the United States and some English craft are on this coast selling to the Indians all sorts of things in exchange for native products. To give a slight idea of the importance of the commerce of this coast, I will state that there is exported annually not less than 6,000,000 of cocoa-nuts [a small estimate], which, as everybody knows, are worth $15 per thousand on the United States market [nearer $30]. The Indians also export ivory, nuts, rubber, coffee, cacao, sarsaparilla, hides, skins, tortoise-shell, and other articles.

The language spoken is a dialect of the aboriginal languages of America, interspersed with many English and Spanish words. Since this region has been under Colombian jurisdiction the Government has never enforced its laws over it; the natives govern themselves, electing their own chiefs (caciques) from among those who are the most distinguished for their valor and public virtues. The investiture of power is for life, but not hereditary, and the dictations of the head cacique, although final and without appeal, are always respectfully submitted to. Their religious methods are sadly neglected, having given themselves up to the practices of heathens.

"This is the part of the official report relating to the San Blas coast, which, in itself, is interesting enough, I take it. But I respectfully call your attention to what the prefect says about the commerce of this coast, it being the first time that official attention has been called to it. Mr. Pasos, in his estimates of the trade, puts the cocoa-nut traffic alone at $90,000, estimating the nuts at $15 per 1,000, when in reality they average nearer $30 per 1,000. Allowing another $90,000 for the remaining native products exported, which is a fair estimate, and we have the gross sum of $180,000 worth of goods exported, against an equal amount of goods imported in payment. The tariff duties on this $180,000 would be fully $75,000, American gold, or nearly $100,000 in Colombian money.

The report being written on August 22, 1889, we find the first vessel seized in October; we can then come to the conclusion that it is owing to this report that the Government determined to enforce its revenue laws with the expectation to add to its revenues the much-needed above-mentioned $100,000. But in this the Government is going to be somewhat disappointed, for the reason that the chief staples taken to the San Blas Indians were arms and powder, the importation of which is prohibited, or at least almost regulated into prohibition. The duty on powder is very great, and that on salt away in the 200 or 300 per cents. Hence the trader can not enjoy his former traffic any further and will quit the San Blas coast trade. Many San Blas Indians now come to Colon, supplying themselves at the stores with such necessaries as they require in exchange for nuts. They come down here in their own boats and return quietly to their native home. The trade on the San Blas coast is practically ended for the time being.

As seen by the report of the prefect, we can safely estimate the annual traffic of the San Blas Indians at $200,000 in round numbers for exports as well as for imports. Taking the admitted population of these Indians, 30,000, we find that if the balance of the population of Colombia were to trade, in proportion, as much as these Indians do, the general imports, the ports of Colon and Panama excluded, would amount to over $25,000,000, at least twice as much as is imported. Hence the commerce of the San Blas Indians speaks very well for their state of civilization. Twice already delegations of these San Blas Indians sent by the cacique have called upon me. The first time they desired to know why Americans did not come to see them any more. I told them the reason why, and they understood my explanation.

These Indians carry beautiful gold ear-rings, home-made, and with native gold, no doubt; otherwise they carry no ornaments, but I am told their women wear solid gold bracelets of great intrinsic value.

I also call your attention to that portion of the report of the prefect in which he refers to coal. If this is true, it is of very great importance, since this coal region would be, so to speak, horse-back on the two oceans, and the question becomes subject to the most serious investigation. I have not seen any specimens of this coal, but will make it a point to secure some samples of it from the Indians themselves at the very first opportunity, provided it is to be secured. They have been very kind to me—in fact, they seem to think very much of the Americans.

VICTOR VIFQUAIN,
Consul.

UNITED STATES CONSULATE,
Colon, March 18, 1890.

American timber in Reunion.—Commercial Agent Edward Rayeur, of St. Dennis, under date of January 27, 1890, reports that deal timbers, and especially the red ones that are called "pechepin," are in great demand in that colony. The forests have been almost destroyed, and in all the buildings the deal timber, not only for the partitions, but also for the rafters, is employed in preference to woods which are, however, far superior. So that, if at New York or elsewhere a firm has a mind to send a cargo of deal timber, viz, full timber, 12 and 18 feet long, 8 inches wide, and 2 inches in thickness, and the same in two, three, four, and five boards, as it is sold currently 12 cents per foot, and sometimes much dearer, the business should be worth the trouble. A fortnight ago a Norwegian ship arrived and her timbers have been sold at 16 cents per foot. In short, deal timber is a branch of commerce worthy to be tried by American firms.

GERMAN HOUSEKEEPING SCHOOLS.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

There are no better trained and drilled housekeepers than German women. The time German boys give to Greek, Latin, mathematics, and "the military" the girls give to simpler tasks and to learning how to be good, careful, saving, industrious wives and mothers. I must confess I never saw any thing like it. Every town, city, and district has its *haushaltungsschule* (housekeeping school). Every once in a while they exhibit, the exercises being practical and theoretical, the latter usually covering such themes as general knowledge of housekeeping; instruction in the nutritions of various foods, their qualities and ratios to a certain standard, their effects as blood, flesh, and fat producers, etc.; care of the sick, knowledge of and nursing and caring for children; household arithmetic, mental and on slates. The practical part at the exhibitions consists of exercises in sewing by hand and with a machine, ironing, mending (patching), knitting (they are born knitters, seem to do it instinctively), crocheting, etc., and the making and keeping of butter and cheeses.

It is astonishing how carefully, cleanly, tirelessly, happily they work, singing all the time some lullaby song of Schiller or other national poet. Order is a German housefrau's first law. They develop a skill that seems astonishing. The scholars go to these schools, not as to a task, but as to a playground, with zest and interest. At the exhibitions one sees all kinds of products, which, like valuable works of art which reveal their beauties only on close inspection, awake most interest under a careful and minute examination. The best way to give our people an idea of these schools and their work is to present a whole course:

(1) The course has for its object the teaching of housekeeping—

(*a*) Cooking, baking, washing, milking, uses of milk, making of butter and cheeses, and care of a kitchen or vegetable garden.

(*b*) Ironing, sewing, mending, patching, knitting, clothes (dress) making, etc. The scholars bring their own working tools and stuff to work with and on. The things made and mended are exhibited on the last day of school, and afterwards given to the scholar who made them.

(*c*) General instructions in housekeeping, and in regard to preserving health when possessed and obtaining it when lost; also, household bookkeeping.

(2) At the head of each school is a special committee of five, chosen from the district committee. This special committee has charge of the admission, dismissal, etc., of scholars; also of the rooms, the food, clothing, etc., of the boarding scholars, and has also an active part to play in seeing that the scholars are properly and carefully instructed. They carefully inspect all work performed, for this purpose visiting the school from time to time during hours of instruction.

(3) Children are expected to visit the school of their own district, though exceptions are sometimes made and children out of one district admitted into the school of another. The girls must be sixteen years old and of good character.

(4) Boarding scholars (and most are such) pay 1 mark per day for board. This goes into the district fund. The payments are made in two installments, one after the first two months, the second at the end of each term.

(5) There are two courses, in summer and in winter. The summer course begins May 1 and continues till the time of harvest, when the girls return to help in the fields and on the farm at home. The winter term begins in November and continues till Easter, or thereabouts, with a two weeks' vacation at Christmas and New Year's. Each term has a length of about five months.

The plan of studies is prepared by the special committee of the district and the teachers. It aims to be as near practical as possible. Any thing like the so-called French or fine cooking is seldom, if at all, indulged in. The manner of cooking taught is that based upon a scientific knowledge of all kinds of foods, animal and vegetable, and the best manner of producing them to secure pleasant taste and health.

REGULATIONS.

Each school has a system or plan of regulations which the girls have to observe:

(1) The scholars must be moral, industrious, etc., and no girl is allowed to leave the school day or evening without permission from principal or teachers.

(2) Visitors are allowed to call, and are received on Sundays and holidays.

(3) All damages or destruction of property resulting from carelessness, willfulness, etc., shall be made good at the expense of the party or person doing the same.

(4) As the scholars get enough of good, wholesome, well-prepared food in the school, they will not be allowed to buy food or drink outside, or to have it sent to them.

(5) All changes and arrangements between scholars are allowed only with the consent of principal or teachers.

(6) The scholars will get up in the morning on work-days at half-past 5; on Sundays and holidays at 6 o'clock. As soon as the scholars are dressed they will assemble for morning prayer, after which they will go each to her daily task or study, as appointed in the plan of studies. At 7 a. m. breakfast is served, at 9 lunch, at 12 dinner, at 4 evening meal (a lunch), and at 7 p. m. supper. Grace is to be said before dinner and supper, and thanks to the Creator of all when rising from the table at these two meals. Evening prayer and "going to bed," half-past 9 p. m. Differences of religious belief will be carefully regarded.

(7) Sundays and holidays the scholars visit each the church in which she has been reared, Protestants the Protestant church, Catholics the Catholic, etc.

(8) Walks and outdoor exercises, etc., are allowed only in company with the teachers.

(9) Opposition to or contempt for rules and regulations, willful destruction or damaging of property, unbearable temper, untruthfulness, and dishonesty will be warned, punished, and finally result, when carried too far, or when no signs of reform or a desire to reform appear, in expulsion from the school.

(10) Protracted absence from the school must be by permission from the district committee and upon request from parents or guardians in writing.

The special committee will arrange the school plan and vacations.

(11) The virtues especially recommended to the scholars to excite rivalry and emulation are cleanliness of mind, body, and in their work, piety, obedience, diligence, frugality, carefulness, honesty in all things, little as well as great, and patience.

PLAN OF STUDIES—SUMMER TERM.

Kitchen class.—From 4.30 to 5.30 o'clock, getting up, dressing, and bed making; 5.30 to 6, cooking coffee; 6 to 9, cooking and general work in the kitchen; 9 to 9.15, luncheon; 9.15 to 11.30, cooking and general work in the kitchen; 11.30 to 12, dinner; 12 to 1.30, work in the kitchen; 1.30 to 3, all kinds of hand-working; 3 to 3.30, luncheon; 3.30 to 4.30, instruction; 4.30 to 6.30, cooking and kitchen work.

Second class.—From 5 to 5.45 o'clock, getting up, dressing, and bed making; 5.45 to 7.30, breakfast, room cleaning, lamp trimming; 7.30 to 9, womanly hand-working, knitting, mending, etc.; 9 to 9.15, luncheon; 9.15 to 11.30, hand-work of all kinds; 11.30 to 12, dinner; 1 to 3, hand-work; 3 to 3.15, luncheon; 3.30 to 4.30, instruction; 4.30 to 6, hand-work for women; 6 to 6.30, arrangement of rooms; 6 to 6.30, for both classes, supper.

Evenings.—First class: 7 to 8 o'clock, work in kitchen; 8 to 9, light hand-work and finishing of tasks. Second class: 7 to 9 o'clock, light hand-work.

First class, plan for theoretical instruction.—From 3.30 to 4.30 o'clock, Mondays, progressive instructions; 3.30 to 4.30, Tuesdays, hand-work; 7 to 8, care of the sick; 2.30 to 3.30, Wednesdays, cooking lessons; 3.30 to 4.30, instructions for further improvement; 3.30 to 4.30, Thursdays, lessons in housekeeping; 3.30 to 4.30, Fridays, improvement instructions; 3.30 to 4.30, Saturdays, instructions in the relative values of foods, their parts, effects, etc.

Any thing more than a mere idea of the good done and being done by these schools it is not in the power of a pen to give; they are a part of that splendid system of education which is at the bottom of Germany's wonderful progress—more than wonderful when one thinks of her very limited resources, the niggardliness* of her soil, inclemency of her climate, and large areas of swamps and land good for little or nothing. I have myself seen so many practical examples of their good that I not only approve of, but most heartily commend them to the consideration of our school-boards. I have seen young girls from eighteen to twenty-five take hold of and direct and run large households, superintending the buying, arranging, cooking, and serving of meals and a hundred household duties. These schools, however, give training to all classes, and fit girls to fill almost any station in life, whether of wife or housekeeper, cook or general servant. They deserve a trial in the States.

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* Vast quantities of fertilizers are imported and manufactured.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, November 26, 1889.

SHEEP RAISING IN NEW SOUTH WALES.

REPORT BY COMMERCIAL AGENT DAWSON, OF NEWCASTLE.

A certain legal firm in Philadelphia having propounded to me a number of questions about sheep raising in this colony, a published answer may be of general interest. And for this purpose I have obtained the following, principally from Mr. Jesse Gregson, general superintendent of the Australian Agricultural Society, the largest and wealthiest company of the kind in this part of Australia:

(1) What is the average cost per sheep per year to the breeders (all expenses)?

Including shearing, traction of wool to port, and shipping charges until water-borne at Newcastle, New South Wales, say 1*s.* 8¼*d.* (40½ cents).

(2) What is the average proportion of sheep to attendants?

At Warrah (a large station) there are no attendants in the ordinary sense of the term. The sheep are in paddocks and require no care from shearing to shearing. They have to be mustered occasionally, as, for instance, for removal from one paddock to another, or for classing, or for lamb marking, or such like operations. The fences are of wire, and are kept in order by boundary riders, who are paid £60 ($291.99) per annum, together with a ration consisting of flour, meat, tea, and sugar. A boundary rider will have charge of from 20 to 30 miles of fence. On the Warrah estate paddocks are from 200 to 4,000 acres each, and there are probably 400 miles of fencing. In dry seasons surface water fails altogether and wells have to be resorted to. These are generally worked by horse whim (power). The above stated cost per head includes not only superintendence, but also outlay in buildings or repairs to buildings.

(3) What is the average weight of a fleece?

The average weight of a fleece was, in 1889, 8.31 pounds; in 1888, 7.92 pounds; in 1887, 7.82 pounds; in 1886, 7.34 pounds.

(4) What is the average price which the breeders receive per pound of wool?

In November, 1889, the company obtained an average catalogue price in London of 11.75*d.* (23½ cents) per pound. That is a higher value than has been obtained for years. The average catalogue price in London for the whole clip of 1888 was 7.99*d.* (16 cents), and for that of 1887 it was 8.24*d.* (16¼ cents) per pound. Freight and sale charges are to be deducted from these prices, amounting in 1888 to 0.72*d.* (nearly 1¼ cents), and in 1887 to 0.79*d.* (over 1¼ cents) per pound.

(5) What is the average size of a flock?

Flocks at Warrah will number about 1,600 or 2,000 sheep, but the young sheep will frequently be in larger lots, say up to 5,000 sheep.

(6) For how many months are the sheep placed under shelter?

The sheep are not under shelter at any time during the year.

(7) What is the character of their food?

The sheep feed on the natural grasses indigenous to the country.

(8) What is the proportion of sheep lost annually from exposure and neglect; the proportion of lambs?

The total decrease from deaths and losses is less than 2½ per cent. per annum. The lambing increase varies from year to year, but will average at Warrah 84 per cent. on the number of the breeding ewes.

(9) On the importation of sheep into the country, what, if any, is the change noticed in the character of their wool?

Can not speak from experience as to this. The change would, of course, vary with the different breeds imported, and would be caused by change of climate and of food.

THOMAS M. DAWSON,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Newcastle, February 20, 1890.

REGULATING COMMERCE IN COLOMBIAN WATERS.

TRANSLATED AND TRANSMITTED BY CONSUL VIFQUAIN, OF COLON, FEBRUARY 3, 1890.

DECREE NO. 638, OF 1883, RELATING TO FORMALITIES FOR THE COMMERCE OF PANAMA AND COLON AND OTHER PORTS OF THE REPUBLIC.

The President of the United States of Colombia, by virtue, etc., decrees:

ARTICLE 1. The importation of foreign goods into the free zone of the Isthmus of Panama can only be done at the ports of Colon, on the Atlantic, and Panama, on the Pacific.

ART. 2. (Relates to police matters in port.)

ART. 3. The agents or consignees of merchant vessels arriving at the ports of Colon and Panama will present to the respective administrador de hacienda, through the intermediary of the inspector of the port, in a period not exceeding three days, a copy of the manifest, with a full and complete description of the cargo, and also comply with other minor regulations, as provided by article 41 of the fiscal code, excepting those provided for in article 9 of the law No. 60 of 1875.*

ART. 4. The formalities of the visit of entry and other regulations relating to the police of the port having been accomplished, and which, in accordance with law, must precede the discharge of the cargo, the vessel will be allowed to discharge without hindrance, having due regard for the provisions of the "port rules" established by the Panama Railroad, as approved

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**Article 41, fiscal code.*—All captains or supercargoes of vessels that are loading in foreign ports, and the destination of which is one of the ports of this Republic, must present to the consular agent of the United States of Colombia, or to his substitute, a manifest, signed in triplicate, which will contain, in order and clearly, the following data: (1) The class, the flag, the name, and port (home) of the vessel; (2) the port of departure, and the port or ports of this Republic at which said vessel intends to stop; (3) the name of shipper, and the name of the person or persons who sends each lot of goods, and of the person to whom it is consigned; (4) the marks and number of each package, and their net weight; (5) the number of *bultos* (packages) in each shipment, and the total of the same destined to each port.

Article 9 of the law No. 60 of 1875.—No punishment will be inflicted for failing to enumerate in the manifest the following: Live animals, tiles, brick, paving-stone or rough stones, timbers for building, grindstones, lime in barrels or sacks, marine salt, lead in sheets or ingots, pig-iron or sheet-iron, rods, staves for barrels, chains (large), iron bars (large and small), drilling iron for mines, demijohns (empty), and large boilers of copper or iron.

by the executive power of the Republic. No reshipment from one vessel to another is allowed without the knowledge and consent of the jefe del resguardo, who is the inspector of the port.

ART. 5. Before a vessel will be permitted to load with foreign goods the captain, supercargo, or agent of the vessel will notify the inspector of the port in writing, stating therein the port or ports at which the vessel intends to touch, the pier or place where the goods are to be put on board, in accordance with article 6 of this decree, and the number of days and hours likely to be required for the loading of the vessel.

If any of the ports of this country named in the application in writing is not an open port* (no *habilitado*), the inspector of the port will at once notify the captain, supercargo, or agent of the vessel that the transaction is absolutely prohibited, and he will take the necessary steps to prevent the goods for such port or ports to be shipped.

If the vessel intends to sail for a port or ports in the free zone of the Isthmus of Panama in accordance with law, the goods will be allowed to be placed on board, provided the inspector of the port has ascertained by the facts the capacity of the vessel and other circumstances, that the goods are intended for the free zone, and not for the purposes of introducing goods at such places as are not enjoying the privileges of the free zone. In all cases the inspector of the port will adopt all means of precaution which he may deem necessary to prevent the fraud.

ART. 6. In the port of Panama the only place at which it is allowed to load, as provided in article 5 of the decree, is the one known as El Taller, and in the port of Colon that part of the port included within the existing piers.

ART. 7. Vessels or craft of more than 25 tons will not be allowed to take foreign goods without first producing two responsible sureties, satisfactory to the inspector of the port, who will be held responsible in a sum equal to twice the amount of import duties which said goods would have to pay under the fifth schedule of the *tarifa* (tariff law). In this case a sufficient number of days will be allowed to produce a voucher or certificate establishing the facts guarantied, to wit, that the goods are declared in the ports designated by the sureties, and, if no voucher or certificate is presented at the expiration of the specified time, then the surety will be forfeited.

ART. 8. The same surety of which article 7 treats, and for the same causes, will be required from the captain, or shipper of goods, of any vessel preparing to leave this port of Colon or Panama, when, in the judgment of the respective inspector of the port, there are reasons for believing that it is intended to take such goods as contraband (smuggling) to a port that is not an open port.

ART. 9. The voucher or certificate referred to in the two preceding articles, and for the same causes, will consist of a certificate from the custom-house officials at the place of destination if the cargo is landed at a port of this Republic which has custom-house officials, or from the consular officer of this Republic in case the goods are discharged in a foreign port, or, in case there is no Colombian consul at the place, then from a consular officer of another nation, in accordance with article 52† of the fiscal code; or, in default of any and all consular officers, then from a certificate signed by three responsible merchants doing business at the place of discharge.

ART. 10. When, in accordance with articles 5 to 9, respectively, there is no objection whatever to grant the vessel permission to load the cargo, the inspector of the port will give it in writing.

Articles 11, 12, 13, 14, 15, and 16 are immaterial to the point of issue; they refer to hatches, to guards, etc.

***Article 16 of the code fiscal.*—The following are declared open ports (*habilitado*) for the importation and exportation, to wit: Carthagena, Sabanilla, Colon, Santamarca, and Rio Hacha, on the Atlantic side. * * *

†*Article 52 of the fiscal code.*—In such ports as have no Colombian consular officers, or in those which have no Chilian consular officers, who, by treaty with this Republic, are obliged to certify Colombian invoices and manifests, or, if there are no consuls of a friendly nation at all in said ports, then by the signatures of two merchants, and whose signatures authenticate the document.

ART. 17. All foreign goods which will be put on board of ships in the ports of Panama, Colon, respectively, in destination for a port or ports of this Republic at which importation of such goods can be done, all rules and regulations provided by section 2 of chapter 2 of the fiscal code as also those provided by articles 5 to 14 of the law No. 109, of 1880, will be strictly observed.

ART. 18. At the other free ports of the Isthmus of Panama, besides Colon and Panama, as specified in articles 17 and 18 of the fiscal code,* the commerce of foreign goods to open ports of this Republic will not be allowed without said vessel touching at Colon, if said ports are on the Atlantic side, and at Panama if on the Pacific side.

ART. 19. As regards the preceding article (18), the respective inspectors of the port will secure on board or at the place of discharge, if necessary, the data required to make certain of the correctness of the manifest and will place evidence of that fact upon the document. This document must show, also, the certifications as provided by article 55† of the fiscal code.

ART. 20. It is absolutely prohibited to trade or traffic between the free ports of the isthmus and such ports as are not qualified as open ports (no *habilitado*).

Article 21 refers to domestic products going from a free port to some open port.

Article 22 provides for the several degrees of punishment to be inflicted for violation of the provisions enumerated in the preceding articles.

The remainder of the decree has no particular bearing on the point at issue (trading on the San Blas coast and San Andreas).

ARTICLES OF THE FISCAL CODE RELATING SPECIALLY TO THE TRAFFIC BETWEEN FREE PORTS AND SUCH LOCALITIES AS SAN BLAS.

ART. 12. It is absolutely prohibited to traffic between the free ports of this Republic and such ports as are not qualified by law as open ports; consequently, when a vessel of any kind, large or small, carries goods from a free port to another port not open to commerce, such punishment will be inflicted as provided for such cases by article 326 of this code. The captain of the vessel or "patron" of the craft, their accomplices and auxiliaries, will in each case be arrested by the competent authorities and be subject to a fine of 200 pesos and imprisonment for from two to four months.

This punishment will not only be inflicted when the vessel is caught in the act of carrying or discharging the goods, but also when preparations are making and the fact reported to a public employé, and after having been fully verified in the courts.

ART. 13. Is also declared contraband (smuggling) the goods carried by a vessel caught on the high seas, in a bay, or in a creek, or cove, or in a port where there is no custom-house, with one or more boats about it, or attached to its sides, and not belonging to the vessel itself, or sent there (to the vessel) by the authority of a collector of customs or deputy.

The vessel, boats, captains, patrons, accomplices, and auxiliaries will be amenable to such punishment as prescribed by article 12 of this code.

ART. 14. The coastwise traffic, or cabotage, with foreign goods is equally prohibited from the ports that are not open ports to those that are such.

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* *Article 17 of the code fiscal.*—Are declared free ports: (1) Colon, Boca del Toro, Chagres and Portobello; (2) Pacific side; (3) those of the archipelago of San Andreas, in the Atlantic.

Article 18 of the fiscal code refers to Panama.

† *Article 54 of the fiscal code* —Respecting vessels arriving in an open port from one of the free ports, the same rules will be observed as if they had arrived from a foreign port.

Article 55 of the fiscal code.—If, in some of the free ports, there are no public officials at all (consular agents, inspector, or port master), the vessel going from such a port to some open port (*habilitado*) with foreign goods must secure at some other port where such officials are located all the necessary certifications as provided by articles 41 and 42 of this code.

Article 42 of the fiscal code.—All persons desirous to send goods to the open ports of this Republic (*habilitados*) must present to the consular officer, or to his substitute, at the place where the goods are shipped from, triplicate invoices which will express: (1) The name of the shipper, where the goods are from, the consignee's name, the port of destination, and the name of the vessel; (2) The marks, enumeration, description, contents, and net weight of each package; (3) The total value of the invoice, without details respecting each package

ART. 19. The ports situated on the islands of this Republic are closed to exterior commerce. Consequently, only coastwise traffic is allowed on such islands.

The ports mentioned in the preceding articles are exempted from the provisions of article 19.

ART. 20. All the regulations provided for and by the system of customs can be executed in the free ports with absolute freedom, excepting only those which are expressly prohibited by articles 39 and 40 of this code. (These two articles refer to the prohibition of the importation of false money, or money less than 0.835 fine, machinery for the manufacture of false money, and nitro-glycerine.)

LAW NO. 109 OF 1880.

ART. 20. The jurisdiction of the inspector of the port of Panama will extend to the littoral and islands of the state of Panama in the Pacific Ocean, and that of the inspector of the port of Colon to all the littoral and islands of the state of Panama in the Atlantic Ocean. (San Blas is on the littoral of the state of Panama; the archipelago of San Andreas does not belong to the state of Panama, it belongs to the state of Bolivar.)

LAW NO. 21 OF 1886.

ART. 2. Sailing vessels are prohibited to trade between Colon and the open ports of the Atlantic, as also between Panama and the Pacific coast of this Republic. (This was amended by the law number 90 of the same year, adding after the word "Republic" the words "with the exception of the ports of Buenaventura and Tumaco.")

CHAPTER 9 OF THE CODE—VIOLATIONS, PUNISHMENTS, ETC.

ART. 326. In case a vessel has no register, manifest, or other documents provided by law, a fine of 200 to 1,000 pesos.

In case of an attempt to unload cargo in a different port than the one mentioned in manifest, the loss of the merchandise, vessel, and other vehicles helping it.

The same forfeiture in case foreign goods are attempted to be imported or re-exported by means of coastwise traffic to or from ports not open to commerce.

Various other penalties for misrepresentations in the manifest, for resistance to custom-house authorities, for taking goods from the custom-house without the prescribed formalities, etc.

TRIAL OF SEED SOWERS IN ITALY.

REPORT BY CONSUL-GENERAL BOURN, OF ROME.

I have the honor to inclose the rules and regulations, as promulgated by a royal decree dated December 25, 1889, for a competitive trial of seed sowers or planters to be held at Foggia, Italy, October 20, 1890.

My predecessor, in his dispatch No. 42, March 29, 1886, referred to a competitive trial that was to take place in October, 1886. Whether such trial took place or not I do not know. For the location of Foggia and the sending of articles thither I would refer you to the above-mentioned dispatch No. 42,* adding, however, that the Anchor line of steamers from New York to Naples stands well with shippers. The time required from New York to Foggia should not be estimated at less than six weeks. If public notice of the trial be given in the United States, too much stress can not be given to the absolute necessity of having every detail as to cost, delivery, and time fully agreed on in advance. According to the custom of the country, almost every transaction is the subject of a separate negotiation regardless of the amount involved.

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*The following is the extract from the report by Consul-General Alden, of Rome, March 29, 1886, referred to by Consul-General Bourn, relating to freight and shipping: "For American makers who may wish to take part the most direct way of sending machines to Foggia would be by steam-ship from New York to Naples and thence by rail, 124 miles, to Foggia. The Italian General Navigation Company, of which Phelps Brothers & Co., of New York, are agents, ordinarily has fortnightly sailings from New York to Italian ports. This company is said to take charge of freight with delivery at any Italian railway station. Prices of freight being so variable, it is impossible for me to state them here, but it would be advisable that charges, time of delivery, etc., should be fully agreed upon in advance."

AUGUSTUS O. BOURN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Rome, April 17, 1890.

RULES AND REGULATIONS OF THE ITALIAN MINISTER OF AGRICULTURE, AS PROMULGATED BY A ROYAL DECREE OF DECEMBER 25, 1889, FOR A COMPETITIVE TRIAL OF SEED SOWERS OR PLANTERS, TO BE HELD AT FOGGIA, ITALY, OCTOBER 20, 1890, TO NOVEMBER 30 FOLLOWING.

[Inclosure in Consul-General Bourn's report.—Translation.]

(1) The international competitive trial of machine seed sowers will open at Foggia October 20, 1890, and close November 30.

(2) Inventors, constructors, and agents may take part in this trial.

(3) Agents entering seed sowers made in Italy or abroad will be considered the representatives of the manufacturers, and to these latter (manufacturers) will be sent the prizes in case of awards.

(4) Seed sowers will be admitted which sow seed in lines and broadcast, and which, beside seed sowing, also scatter manure.

(5) In conformity with the ministerial regulations, a committee of direction will have charge of every thing necessary for the success of the trials. The committee will be composed of the director of the Cerignola Practical School of Agriculture, president; of a delegate of the provincial council, of a delegate of the commune of Foggia, of a delegate of the chamber of commerce, and of a delegate of the Royal Economical Society of Capitanata.

(6) The prizes to be awarded, as established by royal decree, are as follows:

(*a*) A diploma of honor and the purchase by the ministry of agriculture of five seed sowers of the same make as the winning one.

(*b*) Two silver medals, with a purse of 200 lire ($38.60) with each.

(*c*) Ten prizes of 30 lire each ($5.79) to those peasants who, during the trials, shall best learn to guide, manage, and use seed sowers.

(7) A special jury commission appointed by the ministry will award the prizes.

(8) Seed sowers entered for trial must undergo all such trials, both on level and hilly ground, as may be prescribed by the jury. In order to facilitate trials, the jury commission may nominate supplementary jurors to act as advisers without vote.

(9) All charges for the transportation of seed sowers to the railway station at Foggia and return must be defrayed by exhibitors, who, however, are entitled to the reductions allowed in like cases by railway and steam-ship companies both on freight and passenger fares for competitors, their representatives, and workmen.

(10) The various expenses at the trials, including those necessary for draft animals, will be paid by the committee at the cost of the ministry of agriculture.

(11) Requests for admission to the trials must be sent in to the committee of direction not later than September 15, 1890, accompanied by all such technical and economical information which, in the judgment of the competitors, may be necessary for the better knowledge of

their seed sowers; giving also the space occupied by their sowers and the number of dra animals necessary to work them.

(12) Seed sowers will be admitted which have already won prizes at other trials, but new award can not be made to such machines unless they have had some important modification, or unless the prize merited is not of a degree superior to prizes obtained in former trials.

(13) On the receipt of requests the committee of direction will notify competitors of the (acceptance) admission, give them all necessary information, and forward blank forms for the regular shipment of seed sowers and for the enjoyment of the reduction allowed on freight and passenger fares of competitors and their workmen.

(14) Each seed sower must be worked by the maker or his regularly recognized agent who will furnish the jurors with any information required relative to his machines entered. Should the exhibitor or his agent fail to appear at the trials, his seed sower will not be tried or allowed to compete.

(15) The committee of direction will not be responsible for damages to seed sowers during transportation or at the trials.

(16) The jury commission will establish regulations to be followed during the trials, and criterions to govern the award of prizes.

(17) In order better to ascertain whether sowers have regularly distributed seed, the jury commission will await the sprouting of the seed before awarding prizes.

(18) The results of the trials having been ascertained and prizes adjudged, the prizes will be distributed after the reading of a brief report, in which the chairman will state the grounds upon which such prizes have been given. The president of the jury commission will close the trials by indicating the results thereof, and show how far they have been successful and wherein improvements may be desired.

(19) Within two months from the close of the trial the jury commission must make a detailed report to the ministry of agriculture, accompanied with illustrations of the seed sowers which have obtained prizes.

(20) The committee of direction are authorized to issue all such further regulations as they may deem necessary, and to such further regulations competitors must conform.

L. MICELI,
Minister.

ROME, *December 24, 1889.*

LUMBER DUTIES IN THE ARGENTINE REPUBLIC.

REPORT BY MINISTER PITKIN, OF BUENOS AYRES.

The inquiries as to the duties on importation of lumber to this country contained in your circular of November 9, 1889, leading me to believe that a more complete statement of the matter than has yet been made may be of interest to the Department, I inclose herewith, in duplicate, certain tables compiled from official sources of information, giving the tariff law and official values for 1890 and a statement of the imports during 1888.

JNO. R. G. PITKIN,
Minister.

UNITED STATES LEGATION,
Buenos Ayres, February 3, 1890.

[Inclosure in Minister Pitkin's report.]

There is a duty of 10 per cent. on white pine and spruce, unworked, and a duty of 25 per nt. on all other lumber. These percentages are levied upon official values fixed by the Gov- nment. The tariff law provides that for the purposes of measurement under the law the mber is supposed to be 22 milimetros when worked and 25 milimetros when unworked.

The following statement shows the official values, the unit of measure, and the duties on : importation of North American lumber for the year 1890. The values are in national ney, at present more than 50 per cent. below par in gold:

Description.	Unit of measure.	Official value.	Duty.
			Per cent.
lar in boards or planks	Square metro, 25 milimetros thick	$0.50	25
lar in beams	do	.40	25
ite pine and spruce:			
Unworked	do	.41	10
Worked	Square metro, 22 milimetros thick	.50	25
:h-pine, and white poplar:			
Unworked	Square metro, 25 milimetros thick	.45	25
Worked	Square metro, 22 milimetros thick	.58	25
nut	Square metro, 25 milimetros thick	1.00	25
lar, oak, ash, beech, cherry, maple	do	.80	25
: or spruce, unworked, of less than 20 milietros in thickness	do	.50	10

Statement of lumber imported into the Argentine Republic during 1888.

Whence exported.	Pine and spruce.	Walnut.	Oak.	Cedar.	Other woods.
	Sq. metros.	*Sq. metros.*	*Sq. metros.*	*Sq. metros.*	*Sq. metros.*
iany	49,229	5,668	2,333		23,358
um		13,252	3,140		
il	2,960			3,218	3,548
ed States	11,306,921	91,500	62,967	4,920	205,147
ce		9,953	4,553		8,015
	73,620	6,549			33,869
: Britain	204,483	110			197,916
en and Norway	109,684				
guay				372,267	472,337
uay	162,395	194	127	18,382	14,396
places	11,610			60	31,906

›TE.—The square metro (metro = 3.28 feet), with a thickness in unworked lumber of 25 milimetros ietro = 0.039 inch), and in worked lumber of 22 milimetros.

COAST TRADE OF COLOMBIA.

REPORT BY MINISTER ABBOTT, OF BOGOTA.

t having been reported in the New York press that there is a law in ›mbia forbidding coast trade (*comercio costanero, i. e.*, trade between s of entry and points not ports of entry) in vessels of over 4 tons burden, :e this occasion to say that no such law or regulation exists. The minister of foreign affairs, in a memorandum upon this matter, after citing article 9, section 6, article 302, and article 12 of the fiscal code, says:

> To sum up, all merchandise, duly introduced into the custom-houses with all the formalities prescribed for importations, can be carried to the coast of San Blas, being dispatched from the port of importation according to the regulations for *comercio costanero*, and the productions of said coast can be exported only through some port of entry after having been brought there for that purpose.
>
> Articles 316 to 318 of said code contain the proceedings to be observed in carrying on *comercio costanero*. Certain articles of which I have just spoken treat of small vessels (*embarcaciones memores*), which, it seems, are those which do not exceed 10 tons burden, according to the resolutions of April 19, 1887, and April 26, 1881. * * * But the dispositions which refer to that class of vessels treat only of coast commerce (*comercio de cabotage*), which is that carried on between two ports of entry. The result is, that for coast trade (*comercio costanero*) there exists no condition whatever relative to the capacity of vessels (*embarcaciones*).

JOHN F. ABBOTT,
Minister.

UNITED STATES LEGATION,
Bogota, March 7, 1890.

THE CAMANBA AND PIASSAVA TREES OF BRAZIL.

REPORT BY CONSUL BURKE, OF BAHIA.

I. THE CAMANBA-TREE.

I have the honor to forward herewith a brief description of a very useful tree indigenous to some of the northern states of Brazil bordering on or near the Amazon River. I am indebted to Mr. E. M. Newman, of New York, for the information herein given about this tree, which is called by the natives "A camanba."

Exactly what the origin of the word is, its derivation or composition, I have not been able to ascertain. Through the kindness of Mr. Newman I forward a box, addressed to the Department of State, containing some of the articles made from the sap, the branches, the roots, etc., and other parts of the tree, with portions of the tree itself. If the articles shipped per steam-ship *Finance* are not already in the Smithsonian Institute, perhaps it would not be uninteresting to place them there. I would therefore respectfully request the Department to forward them to the Institute as presented by Mr. Newman, who obtained them from Mosson, in the state of Rio Grande do Norte, where for some months he resided.

The camanba is certainly a wonderful tree. Every part of it—root, rootlet, branch, and trunk—is available; in fact, it is indispensable for the natives in building and roofing their huts, making fences, etc., while the articles made from it supply them with food, light, and medicine. It is a species of palm-tree and grows in dry, sandy soil. The bulb (the size depending upon the size of the tree) is strongly farinaceous and when dried and ground produces a kind of farischa used for food by the natives, while the rootlets of the bulb are used for medicine, possessing a strong cathartic property. The trunk, while the tree is young, contains a soft, oleaginous substance, something like marrow; this is good food for cattle, sheep, goats, and hogs. After the tree attains a growth of several years the trunk becomes very hard and can then be used for building purposes. The lower part of the branches, which grow to a length of 8 to 10 or 12 feet, are chiefly used for fences. They are wide and flat at the bottom and tapering towards the top, with short, hard, and very sharp thorns at the edges, in appearance not unlike the mouth of a saw-fish. The fence made from this material is very strong.

The leafy part of the branch, when cut and sun-dried, gives an exudation, which appears on the fan-like leaf or blade. It is a tenacious substance possessing properties very similar to bees-wax. This wax is extensively used for making candles. The leaf or blade has a fiber from which hats, mats, baskets, rope, brooms, dusters, etc., are made. When the exudation is scraped from the blades of palm the branches are used for roofing huts and small houses and for protecting brick walls from the fierce rays of the sun, as well as from the rain. The fruit of the tree is sweet and palatable. The kernel or seed is pounded to a powder and is used in infusion in place of coffee. The articles made from the tree (I think all that can be made) are in the box forwarded.

2. THE PIASSAVA-TREE.

Another valuable tree, found almost exclusively in this state of Bahia and in the northern part of the state of Minas-Geraes, which joins this state on the south, is the piassava-tree.

Like the camanba, the piassava is also a species of palm-tree. From it is obtained a fiber, and nuts called coquilhos. Ropes, brooms, brushes of nearly every kind and for every purpose are manufactured from the fiber of this tree. It is, however, nearly all shipped to England and there manufactured. Very little goes direct to the United States. The natives simply twist the fiber and use it for rope. Germany takes some of the fiber also, and some of the other European countries, but England takes more than half of all exported. For the year 1888 over 25,000 tons were exported, England taking about three-fourths thereof.

The coquilhos, or nuts, are also exported and manufactured into buttons, knife blades, and trinkets of various kinds. The coquilho is susceptible of a high polish, and in this condition has a very close resemblance to ivory.

Piassava patches, called campos, are found in the very heart of the virgin forests and are also scattered through the more open woodland, and are called "piassava do matto" and "piassava do campo."

The most of the trees along the coast here have been cut; therefore, in order to obtain the piassava now, it is necessary to go some distance to the interior. The Government owns nearly all of the piassava lands, renting or giving a license to parties wishing to obtain the fiber, the license extending from a year to a year and a half. Instead of stripping the fiber from the tree while standing, the tree is cut down. In this way the land is cleared, and, if along a river, a jazenda of cocoa or coffee or sugar could be made very profitable, the parties, after the clearing, buying the land from the Government.

The district between the rivers Jequitinhonha and Da Selsa is very rich in fine piassava, and the land, when cleared, would be most excellent for jazendas.

DAVID N. BURKE,
Consul.

UNITED STATES CONSULATE,
Bahia, January 20, 1890.

COST OF KEEPING THE RHINE NAVIGABLE.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

The greatness of the Germans consists in their persevering attention to little things. They act upon the belief that God helps those who help themselves, for they are never tired and never done helping themselves and each other. They make the best and most of what they have got, and are never done trying to get more. The German is a yearner. He looks longingly out along the thirty-two points of the compass, and wishes he had lines of ships running along each line; and he will, if left long enough alone. Not the ocean alone, but the rivers are objects of his care. One river, the Rhine, he navigates for nearly 300 miles, and is cudgeling his brain over plans to make it navigable as far as Kehl or Strasburg (I mean for steamers; it is already navigable for barges). To keep this stream in bounds and navigable Alsace and Lorraine expended since 1841, the period when those states entered into an agreement with Baden to correct the current, down to 1889, 35,282,832 marks, or $8,500,000; and since 1852, the period when the Rhine began first to bring destruction by overflowing of its banks, 3,565,548 marks for dikes. Baden paid for correction and keeping the current in order, since 1838 to 1888, 45,544,220 marks; for dikes and flood preventors since 1840, 3,354,667 marks. For the harbor of Mannheim alone the state has (profitably) paid 18,485,837 marks, and for the small harbor 1,749,371 marks.

Bavaria, Baden's neighbor, on the left bank as you descend, has paid out, from 1840 to 1888, 7,288,903 marks; while the Palatinate villages, towns, and communities have put out for dikes and protective measures 4,313,389 marks. Ludwigshafen's harbor, just across the Rhine from that of Mannheim, cost 2,000,000 marks of the Bavarian state money.

Hessen, further down, put out a total, including costs for running the department having control of the Rhine waters and the dike building where the river runs through Hessen, from 1824 to 1887–'88, 10,892,975 marks.

Prussia, which takes up the Rhine where Hessen lets go of it, put out, from 1840 to 1889–'90, 42,119,548 marks. Besides this sum, she spent for "havens of safety" at Rüdesheim, Lorely, Oberwinter, Oberlahnstein, and Emmerich 1,300,000 marks. These huge sums do not include either the costs of keeping of the walls, wharves, and breakwaters, nor for protecting the dikes, nor the enormous amounts put out to extend the harbors of Ruhrort and Hochfelden. These figures show, if they show any thing, that the Germans find it more than worth while to make and keep their rivers navigable. It would be a very interesting study to find out how much has been expended, not on the Rhine alone, but on the Elbe, Oder, Main (a year or two ago a magnificent harbor was opened at Frankfort), and Weser, to say nothing of the hundred smaller streams, water-ways, and canals.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannheim, December 2, 1889.

THE VEREINS OF GERMANY.

REPORT BY CONSUL MONAGHAN, OF MANNHEIM.

Accidents will happen, even in the best regulated empires and under the best forms of government as well as in the best regulated families. They are happening here every day. Their frequency and the miseries consequent thereupon have led to all manner of preventive and ameliorative measures. Berlin, the Empire's capital, has just closed an exhibition not second in importance to the "World's" at Paris. I refer to the one where met men interested in constructing all manner of appliances for preventing accidents and means for saving human life. With such an array of preventives and rescuing material one must wonder that so many are maimed and lost, and this where fate's following is not believed. The discussion caused by the exhibition, the kind of congresses of those interested, brought together at one point from all parts of the Empire, can not fail to be productive of good results. Even the passing and tarrying stranger, and of these Berlin sees many from all lands, will go home to say what he saw and do some if not much good. The report of the committee will announce a success; if not so great financially as hoped for, still satisfactory and for the future encouraging. The moral effect on society here and abroad will be vast. To no one more than to the so-called *Berufs Genossenschaften*, or trade societies, of the Empire could such an exhibition be of more interest. In 1888 these societies extended their influence over a much longer and wider area of usefulness than ever before, for last year they added to their books twenty-two agricultural, mining, and sea-faring societies. In these societies, or rather unions of societies, there were 5,576,765 members, workmen, enrolled and insured against accident. The sixty-four (*Gewerbliche*) industrial unions embraced, in 1888, 4,320,663 persons. In both a total of 9,897,428 persons in 3,396,704 places of employment (*Betriebe*). It must be remembered that twenty-six agricultural societies had not joined or come under the accident insurance clauses.

The losses amounted to 8,705,648.85 marks, against 5,373,496.46 marks for 1887. This amount was paid to parties injured. Further costs or losses paid out to examiners, boards, or courts of arbitration and for accident preventives amounted to 845,139.86 marks, against 725,619.66 marks in 1887.

There were paid out for starting societies and for outlays consequent upon taking up accident insurance contracts, in 1888, 245,773.49 marks, against 225,673.92 marks for the year previous.

In the reserve fund for 1888, up to August 15, 1889, there were placed 12,325,379.21 marks, against 9,935,438.94 marks for 1887; so that a total output of 25,668,549.73 marks, against 19,157,394.85 marks for 1887, is recorded, and an income of 29,730,033.35 marks for 1888, against 22,266,483.78 marks for 1887.

The total amount of the reserve fund of the eighty-six unions is 28,412,028.82 marks, against 15,720,841.66 marks for 1887. Then for 1888 for 178 officials, against 48 in 1887, employed by the Empire, different states, provinces, and communities in various trades, and for 446,250 workmen, against 259,977 in 1887, who were insured, there were paid out 956,413.54 marks, against 559,433.62 marks for 1887; running expenses of latter, 2,847.74 marks, against 560.39 marks for 1887; other costs, 20,692.89 marks for 1888 and 15,209.15 marks for 1887; a total for 1888 of 979,954.17 marks, against 575,203.16 marks for 1887. The thirteen insurance companies of the building unions (*Bauwerk Genossenschafts*) paid out, in 1888, 223,378.28 marks and took in an effective 737,843.20 marks. The number of accidents (*Unfälle*) in 1888 for which insurance or payments were made was 19,617, against 15,970 for 1887, *i. e.*, covered by the trade-unions as a body. There were 1,440 officials engaged in carrying out the system in 1888, against 1,132 in 1887. In one hundred and thirty-seven insurance companies there were 21,236 persons for 1888, against 17,102 for 1887.

The total number of accidents reported in 1888 was 138,057, against 115,475 for 1887, a frightful increase for one year. Accidents with total unfitting for work, 2,216, against 3,166 for 1887; and accidental deaths, 1888, 3,692, against 3,270 for 1887, were paid for by the trade-union insurance companies. The number of persons left by those who met with accidental deaths and who received the insurance moneys was 2,406 widows in 1888, against 2,143 in 1887; 5,173 children in 1888, against 4,723 in 1887; 185 dependents in 1888, against 217 in 1887; together, 7,764 in 1888, against 7,083 in 1887.

The percentage of the cost of running these insurance parts of or for trade-unions was as follows: Per capita, 0.74 per cent. for 1888, against 0.75 per cent. for 1887; per 1,000 marks of the pay of those enrolled, 1.22 per cent. for 1888, against 1.21 per cent. for 1887. The pay of all those enrolled and insured, which constitutes a basis (each one's separate pay) for estimating the amount to be paid (by each) into the insurance fund, weekly or monthly, was, for 1888, 2,646,092,664 marks. These 2,646,092,664 marks are what would have been earned by the help-workers if on full time.

These insurance societies, the result of experience, are filling everywhere a long-felt want, and are, as a rule, very popular. The best part of them, perhaps, is that they are compulsory things; men must be members. The funds are raised by laws of the State, the employers and employed each contributing parts—the employers two-thirds and the help one-third, though most employers pay for their help. With these and the pension systems everywhere prevailing, not only among Government but large private concerns, the faithful and foolish are alike guarantied against absolute hunger or that horror of horrors, the poor-house.

Their only danger, that of encouraging the lazy and thriftless, is avoided by the careful and just though thorough examinations to which persons injured applying for pensions are subjected. Like the fool who cut off a thumb or finger to avoid military service, the man mad enough to try such a trick to get relief from work and a pension would get neither, for Germans have the schedule of guilt ground down to a very fine point, and, armed with this, can pick, prick, or pry their way into and through the cleverest forms of deceit. Still, I have heard employers complain and say "the rascals manage to get rates and loaf, especially in winter." I doubt, however, if an appreciable percentage succeed with any form of deception. I said all persons are compelled to be enrolled, that is, generally speaking, all persons getting less than $1.50 per day. The daily increasing intelligence of those who labor, their constant reading, their natural instincts to seek personal safety, and their common sense are compelling even the most conservative to yield to their temperate demands; for, like in Tarquin's "Sybil," behind a silent departure rests a menace to demand more. The present law is the outgrowth of a felt, if not expressed, desire; and in later years the Government has shown wonderful aptitude and alacrity in finding out what its people needed, if not wanted, and filling it. There are those here, however, who oppose these schemes and desire a day's pay for workers sufficient not only for the demands of a day, but of the future.

A local paper has the following:

> The Potters' Union numbered, in 1888, 818 societies with a membership of 52,608. To 61 injured persons there were paid out 25,432 marks. The total assessment for the year was 100,293 marks. The running expenses were 37,485 marks; the deposits in the reserve fund 38,148 marks (a mark equals 23.8 cents). The salaries charged to pay percentages amounted to 34,392,514 marks.
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> The Paper-makers' Union embraced, in 1888, 1,268 branches with 53,278 members. There were reported in this union 1,582 accidents, of which 375 were acknowledged as deserving of assistance. The amount thus paid out was 139,283 marks. The running expenses of the union were 34,693 marks; the reserve fund deposits, 208,923 marks. The total assessments were 381,656 marks, and the aggregate of the salaries assessed, 29,573,555 marks.
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> The Union of Skilled (*Fein*) Mechanics numbered, at the end of 1888, 1,626 branches with 45,818 insured members. Seven hundred and twenty-seven accidents were reported, of which 63 received assistance. The amount paid out to those injured was 38,739 marks; running expenses were 45,699 marks; deposits in the reserve fund, 96,847 marks; total assessment, 193,001 marks.

The Musical Instrument Union had, at the end of 1888, 736 societies and 15,313 insured members. The taxed salaries totalized 14,451,323 marks. One hundred and ninety-one accidents were reported, 27 acknowledged as deserving indemnity. To these 27 persons there were paid 14,780 marks; running expenses, 17,806 marks; deposits in the reserve fund, 22,170 marks; total assessment, 56,654 marks.

The Linen Union had 388 branches, 37,523 persons insured, 402 reported accidents, paid out to injured 13,901 marks; running expenses, 24,493 marks; reserve deposits, 44,715 marks; total assessments, 123,882 marks.

The running expenses in most cases seem to largely exceed the amounts put out to and for the injured. However, the less a union has to pay out for injured the better, both for the members and the union. It has yet to be more than surmised that such societies encourage accidents. The uncertainty (of life) that so often attends even the slightest accidents—a cut, prick of a pin, cut from a rusty nail, etc.—makes men more than cautious, not only in avoiding accidents, but in foolishly trying or tempting fate by inflicting wounds on themselves.

J. C. MONAGHAN,
Consul.

UNITED STATES CONSULATE,
Mannhein, December 9, 1889.

THE RABBIT PEST IN AUSTRALASIA.

REPORT BY CONSUL GRIFFIN, OF SYDNEY.

Vast sums of money have been expended by the various Australasian governments in trying to get rid of the rabbit pest. The expenditure in New South Wales alone has amounted to £794,865 ($3,868,211), and Mr. T. A. Coghlan, the Government statistician, calculates that more than £200,000 ($973,300) in addition to this sum was expended by pastoralists on lands in their own occupation. The total cost of rabbit destruction in six years, from 1883 to 1889, was more than £1,000,000 ($4,866,500). Assessments have been made upon the owners and occupiers of the lands to reimburse the Government for a part of this outlay. The assessment has to be paid whether the land is infested with rabbits or not.

Mr. T. A. Coghlan gives the following table showing the yearly expenditure, the amount derived from assessments, and the amount paid by the Government:

Year.	Assessment.		General revenue.		Total.	
1883	£490	$2,385	...	...	£490	$2,385
1884	69,406	337,764	...	...	69,406	337,764
1885	46,926	228,366	£88,128	$428,875	135,054	657,241
1836	40,200	195,633	127,434	620,158	167,634	815,791
1887	47,518	231,247	161,228	784,616	208,746	1,015,863
1888	41,308	201,025	109,464	532,706	150,772	733,731
1889 (May 31)	...	...	62,763	305,436	62,763	305,436
Total	245,848	1,196,420	549,017	2,671,791	794,865	3,868,211

The same authority states that the amount of subsidy paid in many cases greatly exceeded the rent of the holdings. No inconsiderable portion of the fund was devoted to the erection of wire-net fencing. It is estimated that several thousand miles of fencing have been put up in these colonies. The royal commission appointed to report on the means to be used in suppressing the rabbit pest in these colonies recommends that wire-net fencing should be 3 feet high, with 1⅝-inch mesh, and No. 17 gauge. This size appears to have answered the purpose better than any other. The testimony of those who have had experience with wire-net fencing as a protection against rabbits was decidedly in favor of the dimensions as recommended. It is possible that the Government may be compelled to adopt fences made of wire-netting as the only sure means of getting rid of rabbits. The cost of the wire-netting and of putting it up is about £82 ($399) per mile. In view of the large areas to be protected, it is only natural that there should be strong opposition on the part of the pastoralists to the heavy expense entailed upon them. Many claim that the question is a national one, and that the cost of the erection of this fencing should be shared by all classes of the people.

The cost of the wire-netting is increased by the heavy duty of £3 ($14.60) per ton. The great bulk of the netting comes from England. There is, however, a firm (Messrs. Lysaght Brothers & Co.) on the Paramatta River, near Sydney, who manufacture a considerable portion of the wire-netting used in this colony from imported wire, upon which a duty of £1 ($4.86) per ton has to be paid. It is said that if the tax upon the manufactured article were removed there would be much less objection to the erection of fencing. The freight charge on the netting is very heavy. The article takes up a great deal of room, and is often crushed, stretched, and otherwise injured during the voyage. The removal of the import duty might injure the local industry, but would unquestionably be a great relief to those requiring to use wire-netting.

One of the witnesses before the royal commission, in describing the various kinds of fencing used, directs special attention to a peculiar kind of fence erected for a distance of 6 miles, crossing innumerable gullies and ravines leading into the river Murray. It is composed principally of wooden pickets set side by side. In places where the fence crosses ravines sluice-gates are made by slinging the pickets on strong wires. Whatever flood matter comes down is swept through the sluice-gates, sometimes doing damage sometimes not. Slight damage is immediately repaired by the men in charge of the sheep and cattle on that part of the run. They are called in Australia boundary riders. It is stated that this kind of fence barred effectually the progress of rabbits, and that numerous letters had been received from settlers who found these fences to answer extremely well; in fact, many runs had been saved from utter ruin by fencing of this kind.

The royal commission warmly recommends that the erection of rabbit-proof fencing be made compulsory around runs infested with rabbits, and urged that the State should advance to the lessees of Crown lands the cost of fencing, such advances, with interest thereon, being repaid by installments spread over the life of the fence.

The present rate collected in New South Wales in accordance with the rabbit act is half a penny (1 cent) per head for cattle and one-fourth of a penny (half a cent) per head for sheep. Much of the income derived from this tax has been expended in the payment of royalties to professional rabbiters. This royalty varied in different districts from 1 penny (2 cents) to over 1 shilling (24 cents) for the scalp of every rabbit killed, the larger sum being paid for rabbits in districts where they had been thinned out. Several thousand men were employed in this colony alone in the destruction of rabbits, and the industry, if it may be called an industry, seems to have been a very profitable one. Indeed, a good rabbiter could earn from £4 ($19.47) to £10 ($48.67) per week. The holders of the land were compelled to employ them under a penalty of a fine of £50 ($243.33).

In some cases it was shown that the rabbits, on account of the high prices paid for their scalps, were more valuable than the live stock. Under these circumstances, it is not to be wondered at there were men who did not wish to see the rabbits destroyed. The special correspondent of the Sydney Daily Telegraph, who visited nearly all the districts infested with rabbits in Australia, is very decided in the opinion that no matter what system is employed, whether trapping, poisoning, or shooting, the rabbits would be forthcoming so long as the Government is authorized by law to pay for scalps. He said:

> It is simply a case of demand creating a supply. When twenty rabbits will bring the price of one sheep there will always be some hard-pressed squatter tempted to raise rabbits on his run instead of sheep.

In many districts the amount paid for the destruction of rabbits far exceeded the amount received for rent from the lands. For the Albermarle run the half-yearly subsidy in 1889 was £5,566 ($27,087), against only £1,400 ($6,813) received for rent. For Baden Park run the subsidy was £1,090 ($5,304) and the rent £231 ($1,124). Large as these sums appear, they have been greatly exceeded by the subsidies paid in Queensland. I learn from a report made by the superintendent of the rabbit department of that colony that during the months of September and October, 1889, the sum of £90 7*s.* ($439.70) was expended at Bulloo Downs for the destruction of ninety-nine rabbits. At Tickalara eighty-seven were killed at a cost of £40 10*s.* ($197.10). Seven rabbits were killed at Thargomundah costing £28 ($136). No rabbits were killed at Thorley although £36 ($175) was spent in searching for them. The report concludes with the statement that the average cost of rabbit destruction was £1 ($4.87) per head.

The payment of subsidies became so unpopular in New South Wales that the Government determined to discontinue it. Rabbits are, however, increasing in number and threaten to become a greater plague than ever, although it is said the rains during the past season have been so abundant that there will be grass enough both for live stock and rabbits. In seasons of drought the rabbits die off rapidly, and they appear to do most harm when the season is only a moderately good one.

EXTENT OF THE RABBIT PLAGUE.

The number of rabbits in Australasia may safely be estimated at hundreds of millions, judging from the number of skins exported, the number of scalps upon which subsidy has been paid, and the rapid rate of increase. New South Wales exported in one year as many as 15,000,000 skins. Most of these rabbits were killed with poisoned grain and traps, and experts say that only about one-sixth of those destroyed by poison are ever found, for the reason that after taking the poison they die in their burrows and other inaccessible places. In a recent report made to the Crown lands department of Victoria it is stated that two pairs of rabbits left for three years undisturbed and with plenty of food will increase to more that five millions. Mr. H. C. Taylor, the official in charge of the Government bureau for rabbit extermination in New South Wales, informs me—

> It is considered by those who have had considerable experience of a practical nature in dealing with rabbits in this colony that a doe rabbit at the age of four months will have her first litter. It may be taken as a fair average that a doe will, under ordinary circumstances, litter eight times in a year, the average at a birth being, say, eight. Instances are not infrequent where nests have been found containing only two young rabbits, but I have myself seen a doe opened which contained no less than twelve fully formed young.

The same authority states that it has been computed that the progeny of two rabbits left undisturbed and allowed to breed nine times in the year and to have their first litter at four months old would amount to 13,718,000 at the end of the third year. The ordinary term of a rabbit's life is said to range from seven to ten years.

An estimate made by Mr. C. Riddick, of Weinterego, N. S. W., gives the progeny of a pair of rabbits at the end of seven years at no less than 1,500,000,000.

Whether the estimates approach the truth or not, few who have had any experience with rabbits will be inclined to question their marvelous powers for multiplying themselves. At Tergawynia, in 1889, 60,000 acres of grass were laid waste by them. The owner exerted himself to the utmost to get rid of the pest, and succeeded in killing over 1,000,000, but even after the destruction of that enormous number there were rabbits enough left to eat up every blade of grass on his run. Mr. Taylor gives me a case where, on one station, situated on the west bank of the river Darling, near the township of Menindie, the area of which is slightly in excess of 1,000,000 acres, the inspector in employ of the Government counted the skins of 1,387,417 rabbits destroyed upon this holding in one year.

The pest has extended over the whole of the southwestern portion of the country bounded by a line commencing at a point on the river Murray where the colonies of South Australia, Victoria, and New South Wales meet; thence northward for some distance above Silverton; then across the Darling River, between Wilcannia and Menindie; then down to the Lachlan, above Hilston; thence by a line almost due south.

Tame rabbits were brought to Australia in the early history of the country, but when let loose they did not spread. A pair of wild brown rabbits were liberated at Barwood Park, near Geelong, and their progeny spread over Victoria, crossed the Murray River, and at a later period entered Queensland. They created such destruction that legislation was resorted to, and enactments were passed, first in South Australia in 1879, then in Victoria in 1880, New South Wales in 1883, New Zealand and Queensland in 1884, and Tasmania in 1887.

METHODS OF EXTERMINATION.

Among the most successful methods for exterminating rabbits is that of poisoning them with phosphorized grain. Other poisons, such as strychnine and arsenic, have also been tried with more or less success. The injection of bisulphide of carbon into the burrows when the soil is suitable is almost certain to prove effectual for their destruction. There are, however, various objections to the use of poisons, the most important of which is the danger to other animals and sometimes to human beings. Then, rabbits killed with poison are unfit for food and can not be utilized as an article of commerce. This objection, however, is overruled on the ground that the use of rabbits as food would lead to their propagation instead of extermination. Nearly all the factories that have been started for tinning rabbits have been abandoned, owing to the introduction of poisoning and other operations antagonistic to the industry. The royal intercolonial commission, however, does not think the industry should be abandoned, for the following reasons:

> Where land occupiers actually interested in the destruction of rabbits see their way to enter into carefully defined arrangements of this kind, there should be nothing to prevent their doing so, inasmuch as the objection to commercial utilization is removed. There can, indeed, be no reason why those who have to bear the cost of rabbit destruction should not, if they find it practicable, recoup a portion of the cost by the manufacture and sale on their own behalf of products of this kind. The objection—the serious objection—lies in the creation of two independent and opposing interests. But the market value of the various products would not, in the great majority of cases, cover the cost of rabbit destruction.

In regard to the fear expressed as to the danger to live stock from the use of poisoned grain, it is said that much of the danger can be avoided if proper precautions are used, such as removing the live stock from the pastures for a certain time after the poisoned grain has been laid, depositing the grain in furrows, or inclosing the poisoned food by netting, through or under which rabbits can enter, but which are impervious to sheep and cattle. The introduction of ferrets and stoats to prey upon the rabbits has been found to do very well in certain localities, but fears are expressed that these animals will, in time, multiply and become even a greater plague than that they are called upon to remedy. In New Zealand ferrets have been bred extensively for destruction of rabbits, and the practice is still in favor. In 1888 the Government of that colony entered into a contract for a supply of twenty-two thousand ferrets. Previous to 1888 some thousands of ferrets had been turned loose in New Zealand on Crown and private lands. It was stated in a report to the New Zealand Government in 1884 that ferrets had annihilated the rabbits on 90,000 acres of country; that no poison was used; and that dependence was placed entirely on ferrets for the destruction of the rabbits. The pest, however, continued and still continues to overrun certain parts of the country, especially the portions where there is little or no fencing, and New Zealand has had to expend large sums of money every year for their extermination. Previous to 1886 the owners of private lands destroyed rabbits at their own expense, but since that date a subsidy not to exceed £10,000 ($48,665) per annum has been authorized to be expended by the local governing bodies for extermination of rabbits. About 13,000,000 rabbit-skins were exported from New Zealand in 1889, against 12,125,871 in 1888 and 9,900,692 in 1887. In six years there were close upon 60,000,000 rabbit-skins exported from New Zealand, and Sir A. Dillon Bell, the agent-general for New Zealand in London, considers that an allowance of half as many, or 30,000,000, must be made for those not exported. Estimating the cost of obtaining a marketable skin at 3 pence (6 cents) and of an unmarketable skin at 1½ pence (3 cents), the direct expenditure on rabbit destruction during six years, from 1882 to 1888, was about £997,000 ($4,851,900).

Ferrets, while being the natural enemy of the rabbits, are even more destructive to poultry and ground birds, and the same remark is applicable to all animals of the *Mustelidæ*, such as stoats, etc. They very soon kill off all kinds of ground birds, and it is said that nearly all the Maori hens, or wekas, in New Zealand have disappeared.

The committee of the intercolonial commission appointed to examine the correspondence relating to schemes for destruction of rabbits other than disease reported as follows on the subject of natural enemies:

> The usefulness of natural enemies has been long recognized. Their utility varies, of course, with the country, climate, and general conditions. In mountainous districts, and in dense, impenetrable forest or scrub, which serve as breeding grounds for rabbits, they have proved serviceable. The adverse influence of the indigenous enemies was shown years ago by the difficulty experienced in the early attempts to introduce the rabbits; it was only after successive efforts, and after the rabbits through their rapid breeding out-distanced the indigenous enemies, that they gained an undisputed footing.

Hunting rabbits down with dogs and shooting them seems to be a good plan on limited areas where the country is inclosed by fencing, but it is too laborious and expensive on large areas. Various methods for catching rabbits in traps have been employed, but none of them have worked with any great success. The department of lands in New South Wales examined several hundred kinds of traps and arrived at the conclusion that those which kill or injure the captured animal should not be recommended for use, for the reason that they destroy the ferrets and other natural enemies as well as the pest. The traps said to be the most useful are in the form of yards of a quarter of an acre or more in extent, surrounded with rabbit-proof fencing containing openings through which rabbits can enter, but do not allow of their return.

Mr. H. C. Taylor, to whom I am indebted for valuable information for the preparation of this report, informs me that during the month of August, 1889, no less than 908 blocks of land, containing 521,477 acres, were visited by the Government inspectors, who reported that 122 blocks were found to be thickly infested, 399 blocks lightly infested, 272 blocks moderately infested, and on 329 blocks the rabbits were increasing. In addition to the work of inspecting, which involved traveling a distance of 20,202 miles, the inspectors destroyed 2,096,128 rabbit scalps. Sufficient steps had not been taken to destroy rabbits, due principally to the scarcity of labor. During the year 1887 Mr. Taylor says the inspectors destroyed over 27,000,000 rabbit scalps and issued certificates that rabbits to that number had been killed. Mr. Taylor further says that from January to July, 1889, 10,538,778 rabbit scalps were destroyed.

The best method for the destruction of rabbits is still an unsolved problem, notwithstanding the prolonged labors and exhaustive inquiries of the royal intercolonial commission, together with the offers of vast sums of money by the various governments to any one who could find an effectual remedy for the plague. The Government of New South Wales gave wide publicity for several years to a proclamation offering to pay the sum of £25,000 ($121,662) to any one who would propound a scheme for the destruction of rabbits under the following conditions:

(1) That the method or process shall not have been previously known in the colony.
(2) That it shall be calculated to effectually exterminate rabbits.
(3) That its efficacy shall be satisfactorily demonstrated.
(4) That it shall not be injurious nor involve the use of any thing which may be noxious to horses, cattle, sheep, dogs, etc.

The commission appointed to report on the various plans suggested completed their investigations in December last (1889) and stated that they had examined about 1,500 schemes, but not one of them complied with the terms of the proclamation.

Among the schemes considered 115 were for the destruction by disease; 26 of these originated in New South Wales, 8 in Victoria, 3 in South Australia, 3 in Queensland, 6 in New Zealand, 2 in Tasmania, 1 in Fiji, 17 in the United States, 3 in Belgium, 2 in Germany, 2 in Switzerland, 2 in Spain, 1 in Italy, 1 in Austria, 1 in Roumania, 1 in Canada, 1 in India, 1 in Netherlands India, 2 in South Africa, 12 from France, and 20 from Great Britain and Ireland.

The commission was at one time almost deluged with letters asking for details in regard to the offer, and the work entailed upon the secretary in replying to correspondence was very great. Most of the schemes submitted were classified by special committees and reported on. The remaining schemes came under the notice of the commission at a later date; many of these were found to be vague and useless—no specific disease being mentioned. Others were dangerous both to man and domestic animals, and included such remedies as small-pox, glanders, hydrophobia, tuberculosis, etc.; others suggested the employment of nasal catarrh, which is mentioned by Lenckart as peculiar and fatal to rabbits. The liver-worm was also recommended, as it is said to have killed great numbers of rabbits in Colorado. Communications were addressed to Professor Libbert, of Bonn; to Professor Loeffler, of Greifswald, and others, asking for fuller details concerning diseases described by them as peculiar to rabbits.

One of the schemes the commissioners thought especially worthy of notice was that proposed by Mr. W. Rodier, which consists in catching the rabbits in traps and killing the does and allowing the bucks to escape. The bucks under this method will become more numerous than the does and will worry them to death. This plan is now being tried by Mr. E. H. Lascelles, a member of the commission. It is stated that it would require over two years to prove this scheme, and for that reason the commission considered that it had better not be made by a body constituted like the commission, but by the run holders themselves, or by the rabbit bureaus of the respective governments.

M. PASTEUR'S SYSTEM.

The most important scheme investigated by the commission, and one which probably received more attention than any other, was that of M. Pasteur, in which he proposed to destroy rabbits by inoculating a number of them with the microbes of chicken cholera. In a letter addressed to Mr. Alexander Bruce, chief inspector of stock in New South Wales, M. Pasteur said:

> With regard to the rabbit plague, I have not confided further to any one the secret of the use, on large scale, of the means which I have proposed for the partial or total extermination of these rodents by the adoption of chicken cholera. It is to the Government of Sydney that I will make it known, if there be occasion. My representatives have only one thing to do, and I have sent them to do it, at the request of that Government: they have to show that I have proposed a means harmless to domestic animals, a means which kills the rabbits in twenty-four hours, after a single meal sprinkled with the microbes, and that this means is contagious, that is to say, that the rabbits which have taken the fatal meal communicate the disease and death in a notable manner to healthy rabbits with which they are mixed, as they are in the burrows.
>
> How to arrange for the manufacture of the fatal ingredient, how to mix and use at a distance this ingredient with all its properties, that is my secret, about which the commission is to see and know nothing for the present, and which I will only make known if the prize proposed on the 31st of August, 1887, is awarded to me.

It will be noticed from M. Pasteur's letter that the only secret he claimed was the method of mixing and using the virus upon an extended scale. This secret he was willing to make known upon the award to him of the money prize.

The commission, after an extended correspondence and an exhaustive inquiry into the character and effects of the disease, arranged for the establishment of an experimental station at Rodd Island, an isolated spot in Sydney harbor, under the conduct of M. Pasteur's representatives, Doctor Hinds, Doctor Germond, and M. Loir, who had been dispatched to Sydney to represent M. Pasteur. After experiments carried out by these gentlemen, together with a number of tests conducted by Dr. Katz on behalf of the commission, it was determined not to recommend the introduction of chicken cholera into Australasia as a means for the extermination of rabbits, and this decision of the commission is conveyed in their report in the following terms:

> The experiments of Doctor Katz indicated that while the microbes retain their virulence for a time when mixed with putrefying matter, there is a limit to their power of survival. Generally, therefore, it appears that the destruction of rabbits on a large scale by chicken cholera can be obtained only by feeding the rabbits with the microbes of the disease; and, as other poisons, such as arsenic and phosphorus, to the use of which no objection can be taken, will kill rabbits to which they are administered, the commission can not recommend that permission be given to disseminate broadcast through Australasia a disease which has not been shown to exist in these colonies, which in other countries prevails in disastrous epidemics among fowls, but which has never been known to prevail naturally among rabbits.

The commission further reported that M. Pasteur did not seem to understand the terms of the proclamation concerning the reward which was to be given to "any person or persons who will make known and demonstrate at his or their own expense any method or process, not previously known in the colony, for the effectual extermination of rabbits."

The commission, while not entirely satisfied with the results of its labors, reported that its inquiries have not been wholly useless. Its recommendations have aided in the suppression of the system of compulsory trapping, with professional trappers and State bonuses and in preventing the broadcast dissemination of diseases which do not now exist in these colonies. It has also stimulated the various governments to exercise still further efforts to exterminate the pest.

Considerable correspondence has been entailed on this consulate in replying to letters received from citizens and residents in the United States making application to have schemes proposed by them for rabbit extermination brought under the notice of the intercolonial commission. Every possible assistance has been afforded to the applicants.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, February 18, 1890.

Sumatra tobacco for the United States.—The exports of Sumatra tobacco from this consular district to the United States during the year 1889 amounted to 43,397 bales, valued at $6,478,195. From a statement just handed to me by a firm of sworn brokers here, I observe that the dividends declared by the principal companies engaged in the Sumatra tobacco cultivation and trade for the year 1889 were as follows: Deli Maatschappy, 35½ per cent.; Amsterdamsche Deli Company, 42½ per cent.; Deli Batavia Maatschappy, 35 per cent.; Deli Lankat Tabak Maatschappy, 12$\frac{8}{10}$ per cent. All of these are Amsterdam companies.—D. ECKSTEIN, *Consul, Amsterdam, April 29, 1890.*

CLOVE CULTURE IN ZANZIBAR.

REPORT BY CONSUL PRATT.

Zanzibar is noted for being the principal source of the world's supply of cloves, and a report on the cultivation ot this article of domestic economy may prove of interest.

When speaking of Zanzibar, we include the islands of Zanzibar and Pemba, three-fourths of the entire crop of cloves being produced in Pemba. Those grown on the island of Zanzibar are reckoned of superior quality and command the better price, but this is probably due to the fact that the owners reside here, and can thus give their affairs the benefit of direct supervision.

Certainly the conditions for their successful cultivation are most favorable at Pemba, where the rain-fall exceeds that of Zanzibar, but the management being left to careless overseers, the result is the cloves are imperfectly cured and (but little care being observed in handling) are frequently marketed in an inferior condition.

The clove-tree was first introduced into this country by the then Sultan, Seyed Said bin Sultan, about the year 1830, since which time its cultivation has gradually extended, until it is now the chief industry of the islands.

The industry received a check in 1872, the date of the great hurricane. At least nine-tenths of the trees were destroyed at that time, so the larger part of those now standing are of new growth.

A peculiarity of the clove-tree is that every part is aromatic, but the greatest strength is found in the bud, which is the "clove" of commerce. The finest quality of cloves are dark brown in color, with full, perfect heads, free from moisture.

In the cultivation of the clove the first thing to be done is the starting of the shoot. The seeds are planted in long trenches and are kept well watered until and after sprouting. In the course of forty days the shoots appear above ground. They are carefully watered and looked after for the space of two years, when they should be about 3 feet in height. They are then transplanted, being set about 30 feet apart, and are kept watered till they become well rooted. From this time on the young trees require only ordinary care, though the best results are obtained when the ground about the trees is well worked over and kept free from weeds.

The growth of the tree is very slow, and five or six years are required for it to come into bearing, at which time it is about the size of an ordinary pear-tree and is usually very shapely. It is a pretty sight to see a young plantation just coming into bearing. The leaves, of various shades of green tinged with red, serve to set off the clusters of dull red clove buds.

As soon as the buds are fully formed and assume this reddish color the the harvesting commences and is prosecuted for fully six months at intervals, since the buds do not form simultaneously, but at odd times throughout the said period. The limbs of the tree being very brittle, a peculiar four-sided ladder is brought into requisition, and the harvesting proceeds apace.

As fast as collected the buds are spread out in the sun, until they assume a brownish color, when they are put in the store-house and are ready for market.

A ten-year-old plantation should produce an average of 20 pounds of cloves to a tree. Trees of twenty years frequently produce upwards of 100 pounds each.

The present season, commencing with July, 1889, is very favorable, and the crop will exceed that of any previous season. It will, in all probability, amount to 13,000,000 pounds, averaging a local value of 10 cents per pound.

The Sultan derives no inconsiderable portion of his revenue from this source, since the duty is levied at 30 per cent. ad valorem, thus placing to the Sultan's credit for the present year nearly if not quite $400,000.

Besides the clove buds, the stems are also gathered, and form an article of commerce, commanding about one-fifth of the price of cloves and having about the same percentage of strength. To this circumstance is due the fact that ground clove can frequently be purchased in the home market at a lower price than whole cloves.

For the past fifteen years the cultivation of cloves has been the chief occupation of the Arab planters, and had always netted good returns. It seems probable that it will continue to be a profitable crop, since the consumption of the article appears to keep pace with the inevitable increase of production.

Up to the present time the plantations have been worked with slave labor and at comparatively small expense; but with stoppage of slave supplies from the mainland great difficulty will be experienced by the planters during harvest time. One result will be an increase in expenses; but what the planters have most to fear is that the curtailment of the labor supply will entail a direct loss by rendering it impossible to harvest the crop until after it has blossomed, when it would be unfit for the uses of commerce.

SETH A. PRATT,
Consul.

UNITED STATES CONSULATE,
Zanzibar, February 14, 1890.

Correction.—The first and second lines of Consul-General Crawford's "Russian Cereal Trade," on page 503 in CONSULAR REPORTS No. 114, which read as follows: "The preceding figures show that in Russia the production of rye is nearly as great as that of wheat," should, according to the figures referred to, read, "nearly three times as great as that of wheat;" although the text is printed just as it was written by the consul-general, who is usually very clear and correct in his statements.

COAL, SALT, AND LUMBER IN THE RIVER PLATE.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

It will be a long time before the official custom-house returns of the last year will be published, and for this reason I have clipped from the Buenos Ayres Standard the following statement of the receipts of coal, salt, and lumber in the river Plate, for the year 1889, together with present prices of cargoes:

COAL.

Messrs. M. Trebino & Co., the great coal brokers, have favored us with their exhaustive report for 1889. The figures are most interesting and show the enormous development of the trade in the river Plate in one year.

Arrivals of coal.

Description.	1888.	1889.
	Tons.	*Tons.*
In Montevideo:		
From Cardiff	250,000	385,700
From other parts	48,000	68,000
Total	298,000	453,700
In Buenos Ayres:		
From Cardiff	195,000	382,500
From Cardiff for Rivers	78,000	128,547
From Glasgow	22,000	125,000
From Newcastle	29,000	
From Liverpool	22,000	
From various parts	3,500	
Total	349,500	636,047

The variation in prices of the two years is remarkable, viz:

Description.	1888.	1889.
Cardiff in Riachuelo	$8.00 to $13.00	$12.00 to $14.50
Cardiff for Rivers	8.50 to 15.00	14.00 to 17.00
Glasgow for Riachuelo	9.50 to 10.50	10.00 to 14.50
Newcastle for Riachuelo	9.00 to 14.00	12.00 to 14.50

NOTE.—These prices are in gold.

SALT.

Messrs. Trebino also include in their valuable report the arrivals of salt and lumber. The arrivals of salt from Cadiz in the Plate were:

Description.	1888.	1889.
	*Lastres.**	*Lastres.**
At Montevideo	13,000	18,500
At Buenos Ayres	7,000	10,500
For river Uruguay	6,500	14,000
For river Paraná	5,000	8,000
Total	31,500	51,000

*Lastre=56 6 bushels.

The prices for cargoes afloat were:

Description.	1888.	1889.
	Reals.	*Reals.*
For Buenos Ayres and Montevideo	9 to 11½	9 to 12
For up river	10 to 12	12 to 14

LUMBER.

Arrivals of lumber at Buenos Ayres from Brunswick, Pensacola, Montreal, Portland, Boston, Quebec, Fernandina, Halifax, St. Mary, Calais, Wilmington, Canada, etc.: In 1888, 108,112,811 feet; in 1889, 136,750,600 feet. Part of these arrivals went up the river. The stock of lumber at present lying in the "barracas" of the Riachuelo is considerable. The cargoes recently sold are as follows, and show the actual state of the market:

White pine:	Per 100 meters.
No. 2	*$165 to $175
No. 5	*145 to 147
No. 7	*115 to 120
No. 8	*100 to 102
Salado	*90 to 92
Spruce	*92 to 94
Pitch-pine	†41 to 42

The price of white pine in gold will be found by multiplying the above quotations by 44½ cents, the present value of the Argentine paper dollar.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, February 14, 1890.

DISCOVERY OF GOLD IN NICARAGUA.

REPORT BY CONSUL BROWN, OF SAN JUAN DEL NORTE.

A new mining law has recently been adopted by the Government of Nicaragua, in some respects modifying the *codigo de mineria*, under the provisions of which all the mining operations in this Republic have been conducted.

The reason assigned by the Government for the adoption of these new rules for entering mines is the reported discovery of gold-bearing banks and streams about the river Prinzapolka, which discharges into the Caribbean Sea about 60 miles north of Bluefields, its course from the mountains in the interior of Nicaragua being in a southwesterly direction, and passing through the Mosquito Reservation.

The discovery was made in November, 1888, by a German, Mr. August Schultz, of Mounta Plantation, and thus far the gold fields that have been found are located about the branches of the river Prinzapolka, at a distance of 150 to 200 miles from the Caribbean coast, and are not to be reached except by tedious travel in canoes and on the backs of Indians.

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* Paper, dispatched aboard. † Gold, aboard, not dispatched.

When it became noised about the coast that gold had been discovered in that region, gold hunters began to flock into that part of Nicaragua to the estimated number of five hundred, some from Bluefields and other parts of the coast. The principal portion are Americans.

This attracted the attention of the Government, and they sent Professor Crawford to verify the reported discovery. Following his enthusiastic report, the Government then sent a force of soldiers up the river under Commander Urtecho, created a new district called the district of Prinzapolka, and by another defined the limits of the Mosquito Reservation over the river Prinzapolka, fixing the dividing line between Nicaragua and the Reservation, in respect to that river, at the Indian village of Tastaponié; and on the 28th of October, 1889, passed the new mining laws for the new district of Prinzapolka. A noticeable feature of these laws will be found embodied in the provisions of article 2, which requires a foreign resident who wishes to enter or denounce mining lands in that district to renounce, in his petition, his foreign status and all right to appeal to his home government in cases of damages to his person or property.

I may say that, inasmuch as Mr. Schultz, in taking up lands in that region, acted under the old code, it may be that the Government will insist that he must be bound by the provisions of the new laws.

WM. A. BROWN,
Consul.

UNITED STATES CONSULATE.
San Juan del Norte, January 5, 1890.

SUGAR CROP OF SANTIAGO DE CUBA.

REPORT BY CONSUL REIMER.

Owing to the fact that nearly all the sugar estates in this consular district have commenced grinding cane comparatively late, it is at present most difficult to form a correct estimate of the probable amount of the crop. The late beginning of the crop was caused partly by the conviction sugar planters have arrived at that it is best to allow the canes to mature and ripen thoroughly before grinding, even if it retards operations somewhat, and also the fact that the rainy season lasted until early in January and made work impossible. Owing to the entire want of statistics, an idea of the area of ground under cultivation for sugar-cane can not be formed. It is, however, certain that at least one-third more cane has been planted than for last year's crop, and if circumstances are favorable this crop will, in consequence, be one-third greater than the one of 1888–'89. The average yield of cane per caballeria of 33⅓ acres will, if any, be more than last year's crop, according to the opinion of prominent planters here. There are cane fields in this jurisdiction that have been cut year after year for twenty-five years and still yield a fair crop. Newly planted fields (this refers to virgin soil) yield as high as 150 hogsheads, or 225,000 pounds, of sugar per caballeria of 33⅓ acres, and the average yield per caballeria is estimated to be 110 hogsheads, or 165,000 pounds. Owing to the better quality of the soil, this is far in excess of the yields in the western part of this island, and planters here have not to complain of the drought from which the Havana districts have so much suffered, as the rainy season lasted until early in January, and these last two months we have had occasional showers and rains all through the country, which, however, have not been serious enough to retard the crop; in fact, the planters have been benefited by them.

The sugar estates in and about the vicinity of this city, although somewhat distant from the sea-board, are nevertheless slowly and steadily increasing their producing capacity. I say "nevertheless" because last year the tendency has been to concentrate all the estates and form new ones nearer the coast. Guantanamo has several excellent estates near the coast; the others are more inland, but all connected by railroad with the port of Caimanera, in the bay of Guantanamo. In Manzanillo the estates are along the coast line between that place and Cape Cruz. Many of them have their own docks, where vessels load for the United States, or the coasting steamers take the sugar to Cienfuegos, whence it is shipped to the United States.

Estimate of sugar crop of 1889–'90 in the consular district of Santiago de Cuba, showing the amount of sugar shipped and in stock up to and on February 28, 1890, and the probable amount of the crop.

Ports.	Shipped.			In stock February 28.		Probable amount of crop.
	To—	Centrifugal.	Molasses sugar.	Centrifugal.	Molasses sugar.	
		Quintals.	*Quintals.*	*Quintals.*	*Quintals.*	*Quintals.*
Santiago de Cuba	United States direct	90,383	18,506	19,869	....	353,000
Guantanamo	do.	136,237	6,246	101,638	17,961	725,000
	United States via coastwise ports	35,088	30			
Manzanillo	United States direct	60,000	....	56,800	....	450,000
	United States via coastwise ports	38,100	....			
Total	....	359,808	24,782	178,307	17,961	1,528,000

OTTO E. REIMER,
Consul.

UNITED STATES CONSULATE,
Santiago de Cuba, February 28, 1890.

LEPROSY IN NORWAY.

REPORT BY CONSUL GADE, OF CHRISTIANIA.

In the last number of the Norwegian periodical "Naturen" (nature) Dr. Armauer Hansen, a well known dermatologist, gives an interesting sketch of the spread of leprosy, concluding as follows:

Leprosy is found all over the world, but it is only on the Sandwich Islands and in Norway that strenuous measures have been taken to arrest the spread of the disease, and in both places by isolation of the sufferers. From what I have been able to learn the isolation is very imperfect on the Sandwich islands, as they do not seem to know all the lepers. Doctor Arning, a German, who spent several years there to study the disease, relates that he came across lepers on his journeys of whom nothing was known. There, as here, the sick seem to conceal their disease as long as possible. The first measures taken by the Government to arrest the progress of leprosy were at the suggestion of Doctors Danielsen and Boeck, who called attention to the alarming inroads the disease was making. There was then only one asylum for its reception, St. Jörzen's Hospital, in Bergen, supported by donations and very limited in its accommodations. A large hospital was first built for scientific study of the disease and different methods of treatment, and other asylums for lepers were subsequently opened, one at Bergen, in 1856, and two at Molde and at Droutheim, in 1861. Here they could be received and nursed for their life-time at the public expense, and for some years after 1860 all these institutions were crowded, the number of patients being from seven hundred and fifty to eight hundred. The beneficial result of isolation was soon manifest, as the number of lepers has been steadily decreasing ever since the hospitals were opened. In 1856 they numbered about three thousand in this country, and are now one thousand at the most. Admission to the asylums has always been voluntary. It is only recently that parishes have been forbidden to nurse their poorer patients and obliged to send them to the hospitals. A new law was at last enacted, in 1885, providing that the boards of health or communal authorities should enjoin upon all lepers who prefer to live at home the use of a separate bed and as little intercourse as possible with other inmates of the house or farm. If the lepers can not or will not follow the instructions given, the community may order them sent to one of the Government asylums. Married people, however, are not to be separated against their will, unless judged necessary by the community, with the sanction of the parish clergyman and the governor of the province. The object of this law is to leave each community free to keep or send away its lepers. It is not forced to take any steps, but at liberty to do what it finds advisable. The provision is a very democratic one, as it leaves each community to look after the disease, while the expenses are defrayed by the Government. In this way sections of the country which are free from leprosy pay their share towards the extinction of the plague. Leprosy has, on the whole, been a heavy charge on the country, and several times during the last few years propositions have been laid before the legislature that in view of the great decrease in the disease one of the hospitals might be closed and the expenditure thereby reduced.

I believe this would be a poor policy. Nothing in this world costs so much as sickness, on account of the withdrawal of labor power, as well as the direct outlay it involves. Leprosy has, without doubt, been one of the heaviest drains on the nation, from the large number of individuals it has rendered incapable of work. It is difficult, if not impossible, to make any accurate estimate of loss and gain in such a matter, but it seems clear that the expense incurred by the State in establishing and supporting hospitals has been more than balanced by the labor power they have restored to the community. Should any of these asylums be closed, there is a great probability that the disease will again increase. Our country has hitherto stood alone in its provision for lepers; the measures adopted have been humane and effective;

it would be a step backwards to withdraw or diminish them. Now that so much is written of the dreadful revival of the disease, let us show the world that it can be overcome by humane measures without driving away the poor sufferers like victims of the plague, as was the custom in the middle ages. Above all, let us bear in mind that all the pecuniary outlay for arresting disease is an economical gain.

GERHARD GADE,
Consul.

UNITED STATES CONSULATE,
Christiania, Norway, 1890.

AMERICAN TRADE AT CHIN-KIANG.

REPORT BY CONSUL JONES.

AMERICAN AND RUSSIAN KEROSENE.

The average value of American oil during the year as given at the custom-house by merchants in their applications for transit passes was $2.16 (Mexican*) per can of 10 gallons, while the average value of native oil of the same utility was $3.30 (Mexican). The import duty on American kerosene-oil, as per value above specified, would be 10⅝ cents (Mexican) per case. On native oil the likin duty was about 66 cents (Mexican) for the same quantity, *i. e.*, equivalent to one case American kerosene-oil. About four-fifths of the oil used—taking the entire province into consideration—was native oil. The reason assigned by the Chinese for this large use of native oil in comparison with kerosene seems to be that it is less dangerous, and moreover can be used in the Chinese saucer lamp, for the manufacture of which there are large foundries in Hunan. It is a fact that Chinese residing in the suburbs of a large town, like Chin-Kiang or Yang-Chow, for example, use more kerosene-oil than those living within the city walls. The reason for this is hard to understand; but, perhaps, the city authorities exercise their influence to prevent its use within the city limits.

The increase in the importation of Russian oil is due, not to the desire of the Chinese to use this oil, but to the import syndicate, who desire to force a market for this quality. It may here be stated that the use of this oil is confined to the open ports and the immediate districts around them, at least so far as northern and central China are concerned. It would be a great advantage to the export merchants of kerosene-oil in the United States if they could introduce a cheap lamp into China for burning this oil. Such a lamp, in order to meet with a ready sale, should be cheap and strong, in fact, the cost should not be more than $1 (Mexican) per dozen laid down in China; and it appears quite certain that the Chinese in the small towns and country will not be ready to give up their native oil lamps until they can purchase a kerosene-oil lamp nearly as cheap.

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*The Mexican dollar is equal to 73 cents American.

In the values stated below Mexican dollars are taken at 73 cents and exchange on New York at 95 cents, as these were the average rates during the year now under consideration.

Statement showing trade in American kerosene.

Description.	Quantity.	Value.	Import duty.	Transit duty.
American kerosene-oil imported into Chin-Kiang:	*Cases.*			
First quarter	36,756	$61,007.22	$3,050.36	....
Second quarter	31,130	51,669.24	2,583.46	....
Third quarter	27,800	46,142.15	2,307.10	....
Fourth quarter	39,544	65,634.71	3,281.73	....
Total	135,230	224,453.32	11,222.65	....
American kerosene-oil sent into the interior under transit passes:				
First quarter	33,285	55,246.09	....	$1,381.15
Second quarter	27,973	46,429.29	....	1,160.73
Third quarter	24,173	40,122.09	....	1,003.05
Fourth quarter	33,449	55,518.29	....	1,387.95
Total	118,880	197,315.76	....	4,932.88

The above figures show that there was less American kerosene-oil imported in 1889 than in 1888, thus: In 1888 there was imported 152,459 cases; in 1889, 135,230; showing a difference of 7,229 cases.

There was more sent into the interior, however, under transit passes in 1889 than in 1888, thus: In 1888, 109,413 cases; in 1889, 118,880; showing a difference of 9,467 cases.

The price of kerosene-oil in 1888 was higher than in 1889, being in 1888 about $1.75, gold, per case, and in 1889, $1.66, gold, per case. This difference was caused principally by the lower rate of Mexican dollars and the difference in exchange on New York.

The amount of Russian oil imported in 1889 was as follows:

	Cases.
First quarter	4,100
Second quarter	7,600
Third quarter	13,800
Fourth quarter	27,500
Total	53,000

The amount of Russian oil sent into the interior under transit passes during the year was:

	Cases.
First quarter	80
Second quarter	845
Third quarter	5,497
Fourth quarter	11,556
Total	17,978

The price of Russian kerosene-oil, as given at the custom-house in the merchants' applications to land and in their applications for transit passes, was the same as for the American, but the retail dealers reduced their price from 15 to 25 cents (Mexican) per case in order to make sales. In the interior it is all passed off as American oil, the people in the interior not being so well informed as at the treaty ports.

AMERICAN PIECE-GOODS.

The imports of American piece-goods were as follows:

Description.	1889.	1888.
	Pieces.	*Pieces.*
Drills	22,121	21,660
Sheetings	5,754	1,548

This shows 461 pieces of drills more imported in 1889 than in 1888, and of sheetings 4,206 pieces more than in 1888.

There was sent into the interior under transit passes as follows:

Description.	1889.	1888.
	Pieces.	*Pieces.*
Drills	18,163	19,192
Sheetings	4,834	7,399

Both articles show a decrease in 1889. The exchange on New York was also against importers in 1889, the average rate being 95.

A. C. JONES,
Consul.

UNITED STATES CONSULATE,
Chin-Kiang, February 11, 1890.

FORESTS OF HANOVER.

REPORT BY CONSULAR AGENT SIMON.

In various parts of the United States the question has been raised, by what measures the preservation of forests and the plantation and culture of trees might be most effectually promoted in parts void of timber. In connection with this it might be desirable to learn something about the state of forest management in the province of Hanover. This province, the former Kingdom of Hanover, had rich tracts of forests in former centuries, which, in consequence of civil and other wars at various times, were reduced to desolate wastes and remained so until the first decades of the present century, particularly those extents between Hamburg and Hanover, which are known by the name of Lüneburger Haide (Lunenburg Heather).

Besides those wars, another reason for such devastation is to be attributed to uncongenial management, such as division of common forests, by which they were dispersed and fell into the hands of people with small means, and thus were doomed to neglect and destruction. Those singly situated wooded lands, for want of screenings, have greatly suffered by the detrimental, inclement winds, which is easily understood, since large forests will defy the violence of storms better than small woods.

Great credit for having made up for past neglect and faults is due to the celebrated Burkhardt, who, being a great authority in this matter, was appointed director of the forest department in 1850. Part of the Lüneburger Haide, as well as other tracts growing more and more desert by the encroachments of sand, have been wooded with great pains and trouble at his instigation. To prevent the increase of sandy deserts those tracts were at first planted with fir-trees. These could in some parts, after a number of years, be cleared and substituted by beach and other trees. How much the forests have been enlarged in this manner will appear by the following statement: The wooded surface amounted in the year 1850 to 1,217,625 acres; 1885, to 1,551,900 acres. By such plantation of trees banks of rivers and coasts of the sea have been solidified. In consequence of the notorious fact that forests have a great influence on the climate and the attraction of moisture, meteorological stations have been established. Forests serve, moreover, as bulwarks against violent winds and equalize to some extent the extreme differences of temperature. The absorption of water by trees and undergrowth after heavy rains or melting of snow is very considerable, particularly in such tracts where the forest soil predominates; so that well-wooded hills and mountains are the best protection against destructive inundations. In order to promote the establishment of forests in every respect, the Royal Government has granted large sums for the purchase of landed property unfit for cultivation to be turned into forest tracts. The Government is now keenly intent to unite again those formerly scattered wooded parts into one single tract. In the same way the provincial government and *Klosterkammer* (administration of cloister funds) proceed by purchasing extensive stretches of soil. The *Klosterkammer* administers the large funds of the secularized cloisters of the former Kingdom of Hanover, now used for the support of universities, schools, and churches in this province.

Municipalities, communities, and even private individuals who are inclined to establish forest grounds and manage them rationally will receive loans at 2 per cent. and even cheaper from the provincial government, to be re-imbursed yearly by small installments. Also, single subsidies are granted for once for the turning of large wastes into forest grounds. For the latter purpose the provincial government resorted to a new and original method, by using vagabonds, tramps, and prisoners not of a dangerous character for forest culture, and, indeed, according to experience, with great advantage both with regard to the workers and forest culture. In this manner about 9,000 acres were planted with trees by before-named troublesome classes within the years 1876 to 1888. Moreover, communities as well as private individuals have turned about 14,000 acres into forest grounds within the same period by means of subsides afforded by the provincial government. Besides, the matter of forest culture is encouraged and promoted on the part of the Royal Government, as well as the provincial government, by the establishment of nurseries, where plants and young trees are to be had at very moderate prices.

By a legal preservation of forests in the vicinities of towns pleasant walks are created for the pleasure and health of the inhabitants, without regard to the material profit of those places. At a short distance from the old city of Hanover, for instance, was the so-called Eilenreide, a forest of about 1,500 acres, which the city now partly encircles. This forest has essentially contributed to the reputation of Hanover, with regard to sanitary condition, to the extent of its being now, according to statistics, one of the healthiest cities in Germany. Several smaller towns, which own extensive forest grounds and manage them in a rational way, clear by the net yielding of those woods the whole of their municipal expenses; as, for instance, the town of Münder, situated at the foot of the Deister Mountains. The town of Goslar derives an income of $25,000 to $30,000 from an extent of 7,500 acres of forest grounds. Every traveler on an excursion to Goslar and other parts of the Hartz Mountains will have admired the fine, practical forest roads which facilitate the transport of wood. It has been estimated that, by the higher prices which the town receives at the sale of the wood on account of the easier transport, the capital invested in making these roads and keeping them in good condition yields 20 per cent. yearly.

A. M. SIMON,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Hanover, March 1, 1890.

THE RIBBON INDUSTRY OF ST. ETIENNE.

REPORT BY COMMERCIAL AGENT MALMROS.

In view of proposed changes in the French tariff of import duties affecting the ribbon industry, the chamber of commerce of St. Etienne has just sent a communication on the subject to the French Government. The following is a translation of such portions of the communication as may be of interest to the United States:

> The ribbon industry has just passed through a very prosperous period, and it may be said that it has never enjoyed such activity as has been witnessed during the last four years, and the production has exceeded in a notable manner the figures attained hitherto, even in the most brilliant years. However, it can not be said that the benefits realized have been in proportion to the amount and importance of business done, because the ribbon industry, engaged essentially in the foreign trade, is obliged to sell its produce at very reduced prices in order to compete with foreign production. The present happy situation seems unfortunately destined to come shortly to a close, as a complete change has come over the transactions of this industry within the last two or three months. The prosperity above mentioned may be attributed to more than one cause. Fashions have had always a preponderating influence on the production of St. Etienne. Nevertheless, the present low price of silk has in a considerable measure contributed to the activity of the ribbon industry in facilitating the placing of its products. Again, the development of the general comfort and of the national prosperity permits

the masses to use articles which hitherto were considered as luxuries reserved to the well-to-do classes alone.

The economical régime inaugurated in 1860 has had a happy influence on the development and prosperity of the ribbon manufacture. One of the most remarkable consequences of the commercial treaties was the enabling of the St. Etienne manufacturers to import and ulilize the fine cotton threads which were, in a way, prohibited up to that period, and which the French spinning factories produced badly, if at all.

It was in 1860 that cotton entered into the texture of velvet ribbons and a thousand other articles of the ribbon industry, which permitted a considerable development of its exportation. This development would have been much more important if, by the treaties, exaggerated duties had not been maintained on cotton and silk threads. The treaties of 1860 were made on the eve of the secession war in the United States. This great country, which used to place at St. Etienne orders amounting to 30,000,000 francs yearly, discontinued all at once its commands. The exportation from this town, consequently, was stopped for two or three years to the United States, where duties, almost prohibitive, of 40 to 60 per cent. ad valorem were placed on its productions. England, thanks to the treaty of 1860, suppressed the duty of 15 per cent. on silks and ribbons, and thus a market was found which compensated in a great part for the decrease in American orders.

It is difficult to give a correct estimate of the development of the export trade of St. Etienne tissues, for, by reason of a strange error of the custom-house, the statistics concerning their exportation before that date are absolutely erroneous. A comparison of our exports in 1860 and 1866 shows, however, that the treaties of 1860 had a real influence on the production of ribbons. In the former year we exported to England silk and velvet ribbons, silk braids and mixed braids to the value of 43,450,100 francs; in the latter year, 70,402,309 francs.

The manufactures of St. Etienne are exported over the entire world. The exportation is effected by French and foreign commission houses established in this place and by the manufacturers directly, as well as indirectly by Paris firms. Until late years the exportation was chiefly in the hands of commission houses, but within the last few years the course of business has been modified, thanks to the increased facilities of communication. There still exist at St. Etienne numerous commission-merchants, French and foreign, but their importance has diminished, as well as the amount of business transacted by them. A great deal of business is also done through the medium of Parisian commission houses and houses dealing in articles of fashion. To-day manufacturers go themselves abroad, organize agencies, and treat directly with their foreign customers. Many foreign buyers, instead of coming directly to St. Etienne, stop at Paris, where they find a general assortment of all the various articles of fashion they may need, and may make their choice as to quantity not less than quality. When they address themselves to St. Etienne directly, they are obliged to give orders of a certain importance and to grant a delay of from two to three months to fill their orders. Some St. Etienne firms have begun, however, to manufacture beforehand, so as to have a stock of goods ready for buyers.

It is difficult to accurately estimate the proportion of goods exported from St. Etienne to that of goods manufactured, because of the indirect exportation effected by the Paris houses. However, it may be confidently asserted that 75 per cent. of the goods manufactured find their way abroad, while the remainder, or 25 per cent., are destined for home consumption. The exportation from St. Etienne direct represents about 50 per cent., while that from Paris may be estimated at 25 per cent. The houses of the latter place have to-day travelers among all the nations of Europe, and even in America, finding thus the means of exporting to a considerable amount articles destined to serve the fashions of the day.

The value of the silk used by our manufacturers during the year 1889 may be estimated at 61,000,000 francs; cotton and india-rubber, 5,000,000 francs; total, 66,000,000 francs. Considering the present prices of silk and cotton, the cost of the raw material may be estimated as constituting 64 per cent. of the cost of production of our ribbons. From this it results that the entire value of our ribbons produced during the year 1889 amounts to about 103,000,000 francs.

The principal material employed in the manufacture of ribbons at St. Etienne is silk, cotton and india-rubber entering into it, but in feeble proportions.

The silk employed is almost entirely of foreign production, as statistics show that within the last twenty-nine years only 10 per cent. of home-raised silk has been used, and the average has even fallen to 6 per cent. within the last ten years. The great perfection to which China and Japan have brought silk cultivation and the low prices of the silk accounts for this increase in the consumption of the foreign product to the detriment of the home article, the rôle of which may be said to be almost effaced. The chamber of commerce, therefore, thinks that to interfere with the present rates of import duties on foreign silks would be productive of the gravest results. The slightest increase of these duties would cause a displacement of the silk market from Lyons to London and Milan, and probably also benefit some German town. The St. Etienne manufacturer, obliged to compete in other countries with foreign manufacturers, has been forced to be satisfied with so small a profit that the slightest additional duty on silk would make such competition impossible. Concerning the organization of the ribbon industry of St. Etienne, it may be said that it employs 21,000 looms, of which 17,000 are the property of the workmen, on which they work at their own homes, surrounded by their families, and transmitting to their children the technical and artistic qualities acquired by themselves. These 17,000 looms represent a capital of from 25,000,000 to 28,000,000 francs. The number of men and women employed on these 27,000 looms exceeds sixty-three thousand. At the side of the weaver there is a complete organization of artisans, without which the ribbon industry could not exist, such as dyers, silk dressers of various kinds, manufacturers of looms, etc.

OSCAR MALMROS,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
St. Etienne, March 13, 1890.

DUTCH-AMERICAN BACON IN GERMANY.

REPORT BY COMMERCIAL AGENT SMITH, OF MAYENCE.

I herewith transmit a translation of an interesting article on the surreptitious importation of American bacon from Holland, which appeared in the Frankfurter Zeitung, one of the leading newspapers of Germany.

BERLIN, *February 27.*

With respect to "American bacon in Germany," whose importation, as is well known, has been forbidden for a number of years past, a Hamburg trade journal for butchers and sausage manufacturers, the weekly periodical "Always Ahead," publishes the following communication: "For some time past very large quantities of bacon have been imported into Germany from Holland which is to be regarded as not of Dutch but of American origin. This bacon is shipped not only to Hamburg, but particularly to Westphalia and the Rhineland, at surprisingly cheap prices, and, indeed, at 52 to 54 pfennigs per pound (12.3 to 12.8 cents for 1.1 American pounds) for smoked flesh. Notwithstanding this bacon has to pay 10 pfennigs a pound (2.3 cents for 1.1 pounds) customs duty and 2 to 3 pfennigs (about half a cent) freight, it is sold at lower prices than Dutch bacon in Holland itself, and also cheaper than German bacon in Germany. Live swine cost in Holland 55 to 57 marks a hundred ($13.09 to $13.56 per 110 pounds), while German bacon, according to the pork prices of to-day, would come, with a modest profit, at about 75 pfennigs (17.8 cents) for smoked flesh. It is not inferior meat of slight value that is concerned, but simply what can be purchased very cheap in Holland, that is, American meat imported in a salted state into Holland and smoked there; and at a cost price of 30 pfennigs (7.1 cents) a pound for salted American pork certain Dutch dealers are afforded a handsome profit, while the business in the article is made impossible to all parties concerned who do not participate in such transactions, and to-day in the season no one is able to dispose of dear meat from German swine. The importation into Germany is said to be principally effected on the frontier between Holland and Westphalia, especially at places where there are no large custom-houses. Without making any reflection on the local authorities or the German consul in Holland, the importation may be said to be conducted in the following manner: A curer of Dutch bacon goes before the Dutch officials with 10,000 pounds of Dutch bacon and gets a certificate from the local authorities for it, which the German consul legalizes. Then he has American bacon packed into the cases instead of Dutch and gets it over the frontier unmolested through his Dutch certificate. The 10,000 pounds of Dutch bacon which remain behind are sent back to the Dutch manufacturers, who get a new and entirely correct certificate for them." If this description is true, it presents very weighty reasons against the continuance of the import prohibition. This experience teaches, in the first place, how difficult it is to strictly carry out the prohibited importation of a product from a particular country which is produced as well in other countries. In order to really exclude American bacon from the German market, the German Government would be obliged to subject the importation of bacon from all other lands to a very strong control in those lands themselves; and how easily, for all that, could it be evaded with success, as in Holland, in any other European state, yea, even in a transmarine country. The prices cited show what a considerable enhancement of the price of an article of food that is very necessary to the nourishment of the poorer classes has been brought about by the prohibited importation from the United States. When the pound of smoked American bacon costs 30 pfennigs in Holland, while it costs 75 pfennigs in Germany, on the other hand, the operation of the import prohibition is to make smoked bacon two and one-half times as dear in Germany, which must certainly be felt by the poorer part of the population as heavy taxation. Finally, it can not be perceived on what grounds the import prohibition can be further justified when large quantities of American bacon are constantly coming to Germany in all kinds of roundabout ways without any deleterious effect on the health of the consumers manifesting itself. According to the allegations with which the sanitary authorities at the time of its adoption defended the import prohibition, American pork is in a high degree infected with trichinæ, the meat of diseased or plague stricken animals, etc. But if considerable quantities of this alleged very dangerous merchandise enters into German consumption without producing the baneful effects feared, then every real and legal reason for the decree issued by the Bundesrath is wanting. A large increase in the importation of bacon from Holland into Germany is furthermore shown by our commercial statistics. In 1888 there were 4,689 double centners (1,036,269 pounds) of flesh and bacon imported; in 1889, however, 11,251 double centners (2,486,471 pounds).

JAMES H. SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, March 1, 1890.

EGYPTIAN-SOUDANESE TRADE.

REPORT BY CONSUL-GENERAL SCHUYLER, OF CAIRO.

I have the honor to inform you that the Egyptian Government has decided to re-establish, as an experiment, commercial relations with the Soudan, on condition that that measure shall apply exclusively to the gums and other products of the Soudan imported into Egypt, and to tissues, cottonades, and other manufactured products exported from Egypt. The exportation of arms, powder, ammunition, and grain remains absolutely and severely prohibited.

It is very uncertain what will be the effect of this order, which has been brought about by the British agent and consul-general here, and is the result of his trip to upper Egypt, from which he has not yet returned. The Dervishes are hungry, but no food will be sent to them. It is thought, however, that if they can exchange their gums and ivory for cloth, and especially for money, they will be gradually induced to keep the peace when they see their material gains.

There might, perhaps, be an opening here for American cotton goods.

EUGENE SCHUYLER,
Consul-General.

UNITED STATES AGENCY AND CONSULATE-GENERAL,
Cairo, December 3, 1889.

TWO-WHEELED CARRIAGES IN CHINA.

REPORT BY CONSUL-GENERAL LEONARD, OF SHANGHAI.

In the foreign settlement of Shanghai a two-wheeled carriage, called the "jin-ric-sha," is used extensively, but in no other port of China are they in common use, or likely to be, until such time as roads suitable for two-wheeled carriages are constructed.

The jin-ric-sha (literally, man-power carriage) was originally used in Japan. A few years ago it was introduced here and called by the natives Lung-yang-chai, or Japanese carriage.

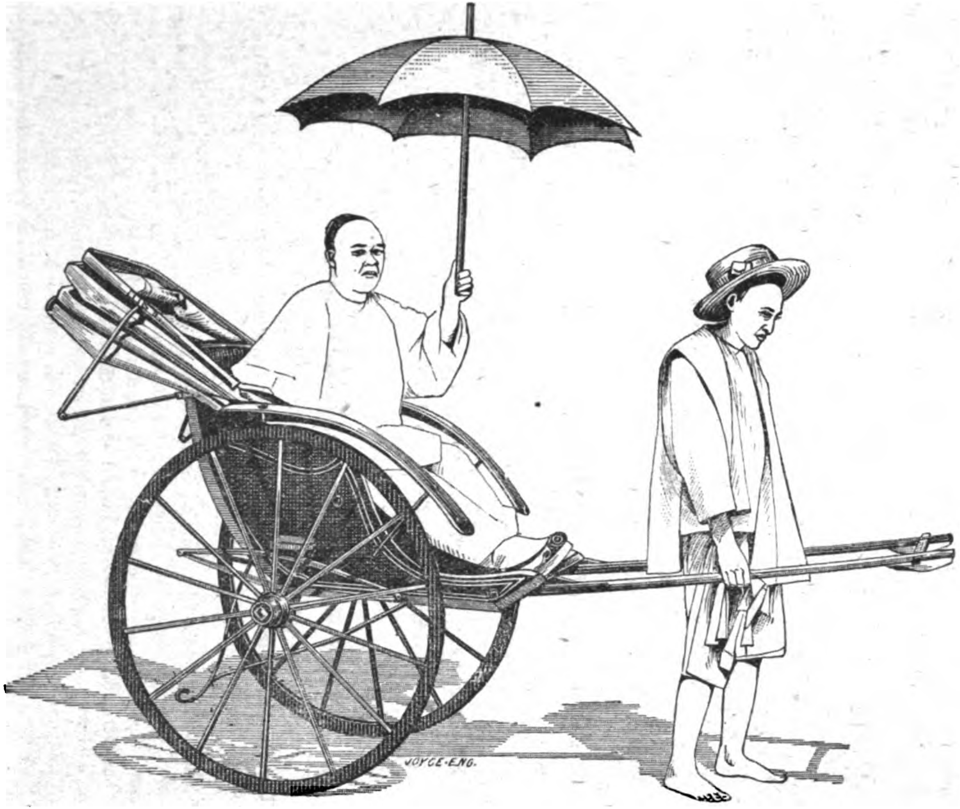
During 1888 the municipal council of Shanghai licensed twenty-six hundred jin-ric-shas per month.

There are probably one hundred more in private use. Those used for ordinary street traffic cost about $10 when new. The private ones cost up to $100. The duty on jin-ric-shas would be 5 per cent. ad valorem. There would be no restrictions placed upon their importation.

That some idea may be had of their general appearance I inclose a photograph of a Shanghai jin-ric-sha.

J. A. LEONARD,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Shanghai, January 24, 1890.



SHANGHAI "JIN-RIC-SHA."

EUROPEAN TRADE WITH MOROCCO.

REPORT BY CONSUL TURNER, OF CADIZ.

I have the honor to hand you herewith a letter and its translation from the Spanish minister of state to the Cadiz Board of Trade. It relates principally to the newly established line of steamers between Hamburg and Tangier, and to European trade with Morocco. It emphasizes what this consulate has often called attention to, viz, the enterprise of German merchants.

I trust that when our merchants read of a German commercial expedition passing two years in Morocco so as to become acquainted with the resources, tastes, customs, etc., of its people that they will be prompted to urge upon American boards of trade the necessity of like expeditions. The world has plenty of markets for the results of the magnificent agricultural and manufacturing energy of the United States if merchants will only take the necessary steps to understand these markets and connect them with our centers of trade.

I might add that of such markets Spain, in my opinion, is not one of the least.

ROBERT W. TURNER,
Consul.

UNITED STATES CONSULATE,
Cadiz, February 8, 1890.

THE MINISTER OF STATE TO THE CADIZ BOARD OF TRADE.

[Inclosure in Consul Turner's report.— Translation.]

The board of trade has received the following communication from the commercial section of the minister of state:

"MADRID, *January 30, 1890.*

"The German Bank of Exportation, head-quarters at Berlin, and the Central Geographical Society of Commerce have established a line of steamers between the ports of Hamburg and Tangier. They commence running February 1 and make a trip every twenty-five days.

"The German Government has published statistics of the commerce of Morocco with the nations of Europe during the year 1887. These statistics show that the trade of that country with Spain is very small compared with its trade with England, France, and Germany.

"The bank above referred to has published statistics calculated to stimulate merchants and manufacturers to take advantage of this new line of direct communication. The line, which is called the Atlas, sends two steamers, which call at Antwerp, Oporto, and Lisbon on the outward trip and at Mogador, Mazagaw, Casablanca, Lisbon, Oporto, Bordeaux, and Antwerp on the return. In the time of the exportation of wool they will also touch at Dunkirk, because of its proximity to Roubaix, a most important market for wool, being the center of woolen manufacturing industries. According to the report made by the German commercial expedition that traveled all over Morocco in 1887, the goods most easily sold in that country are clothing, felt cloth, silk, iron ware, knives, daggers, wire, pins, tinware, watches, clocks, porcelain ware, mirrors, lamps, colored soaps, candles, sealing-wax, sugar, tea, beer, and all kinds of spirituous drinks. To sell all these articles with ease it is necessary to conform in size, quality, and colors to the customs of this country.

"By order of the minister of state, I send to your honorable body the foregoing notice, which is of real interest to our national commerce.

"May God guard you many years.

"JOSÉ FERNAÑDEZ JIMENEZ,
"*Under Secretary of State.*

"To the President of the Cadiz Board of Trade."

INDUSTRY IN BELGIUM.

REPORT BY CONSUL ROOSEVELT, OF BRUSSELS.

Population considered, no country in Europe possesses more industrial establishments than Belgium, and none such a considerable number of working people. The last official census gives 26,521 industrial establishments, employing 428,755 hands, besides 5,975 independent workers. Since this official count the number of working people has increased to about 500,000.

The annual production of the principal industries is valued at 2,170,000,000 francs, exceeding by 750,000,000 francs the production of the soil and 525,000,000 francs more than the combined products of agriculture and cattle.

The industrial and agricultural population numbers 1,199,319 men and women. In agricultural pursuits the annual average per person amounts to 1,317 francs, while in industrial life, counting the entire personnel, the average is 5,073 francs per head. These important values are notably due to a few industries whose annual production exceeds 100,000,000 francs, such as—

Industries.	Annual output.	Industries.	Annual output.
	Francs.		*Francs.*
Mills (grain)	322,000,000	Exploitation of coal mines, fabrication of coke and agglomerates	184,665,183
Slaughtering animals for consumption	182,000,000	Metallurgy and foundries	216,009,064
Coal mines	156,000,000	Factories or workshops for buildings	104,189,693
Woolen industry	148,000,000	Textile industries (flax, hemp, cotton, wool)	363,605,602
Foundry industry	137,000,000		
Breweries	118,000,000		

The following proportional classification shows the quota of the several provinces in the total production of Belgium:

Provinces.	Per cent.	Provinces.	Per cent.
Hainaut	24	West Flanders	7
Liege	21	Namur	4
Brabant	16	Limbourg	2
East Flanders	15	Luxembourg	1
Antwerp	10		

Milling and slaughtering of animals in all the provinces except Luxembourg and Namur furnish the highest percentage in the above table.

Important industries in each province.

Industries.	Annual output.
Hainaut:	*Francs.*
Foundries	69,000,000
Locomotive building and railroad material	27,000,000
Breweries	25,000,000
Coke	13,000,000
Tanneries	11,000,000
Liege:	
Woolens	114,000,000
Foundries	56,000,000
Metallurgy	42,000,000
Zinc	32,000,000
Coal mines	38,000,000
Manufacture of arms	21,000,000
Sugar	17,000,000
Machines and mechanical apparatus	14,000,000
Brabant:	
Beer	34,000,000
Leather and hides	24,000,000
Brabant—Continued.	*Francs.*
Paper boxes and paper-hangings	14,000,000
Oil-cake	10,000,000
East Flanders:	
Linen manufactures	59,000,000
Cotton manufactures	51,000,000
Oil-works	21,000,000
Mixed tissues	19,000,000
Breweries	14,000,000
Antwerp:	
Sugar	36,000,000
Alcohol and brandy distilleries	23,000,000
Rice (rizeries)	19,000,000
Breweries	12,000,000
West Flanders:	
Linen	22,000,000
Breweries	13,000,000
Mixed tissues	10,000,000
Oils	10,000,000

The provinces of Limbourg, Luxembourg, and Namur do not possess any industry except the distilling of alcohol, whose results exceed 100,000,000 francs.

Taking the round number of 6,000,000 as the population of Belgium, it will be seen by the foregoing that the annual production averages about 363 francs per inhabitant. The statistics of England give 144.44 francs, and Germany averages about 90.80 francs per capita.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Brussels, March 1, 1890.

AMERICAN VINES IN FRANCE.

REPORT BY CONSUL-GENERAL RATHBONE, OF PARIS.

The success of the American vines in France still continues to be very great; everywhere they take possession of the ground which the phylloxera ravaged.

From a report read by the director of French agriculture before the high commission of the phylloxera on the 3d of February, 1890, it appears that the area of vineyards, replanted with American vines, increases with such rapidity that before long it will be as large as it was before the phylloxera extended its ravages.

Table showing area planted with American vines.

Year.	No. of departments.	Area planted.
		Acres.
1881	17	22,004
1882	22	42,246
1883	28	69,222
1884	34	130,419
1885	34	186,057
1886	37	273,770
1887	38	409,015
1888	34	530,759
1889	44	*740,849

* It did not reach this figure.

If the replanting continues with the same progression, four years hence the vineyards area of France, which is already the largest in the world (4,542,000 acres), will reach 6,425,000 acres, a surface greater than it has ever occupied.

J. L. RATHBONE,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Paris, March 12, 1890.

MORTGAGES IN INDIA.

REPORT PREPARED FOR CONSUL-GENERAL BONHAM BY AN ATTORNEY-AT-LAW IN CALCUTTA.

RECORDED INDEBTEDNESS.

By "systems of recorded indebtedness" we understand means open and available to the public for ascertaining from public records the outstanding debts, charges, and liabilities of others.

Indebtedness is recorded throughout India in two ways only, and the record depends upon the nature and origin of the debt, and the right of the public to inspect the record depends upon the nature of the debt and the manner of its record. The headings under which the system of record of indebtedness in India may be conveniently divided are the following:

(1) Indebtedness created by deed.

(2) Indebtedness created or declared by judgment decree or order of a court of justice.

(3) Indebtedness arising under bills, notes, bonds, and the like securities, and which the parties have voluntarily caused to be recorded.

We propose to deal first with the headings 1 and 3 as being both controlled by the same enactment of the legislative council of India.

Under the provisions of act 3 of 1877 (called the Indian registration act, 1877), an office is established in each of the presidencies of British India, called the office of the registrar of assurances for the presidency in which it is established, having for its head in each presidency an officer styled the "inspector-general of registration." Each presidency town has a registrar of assurances, and each town, village, and hamlet throughout each presidency has a local district or subregister with a district or subregistration office subordinate to the presidency registrar and submitting periodical returns to his office, the presidency registrar and all subordinate to him being under the direction and control of the inspector-general of registration. In each registration office the following books are kept, viz:

(1) Register of non-testamentary documents relating to immovable property.

(2) Record of reasons for refusal to register.

(3) Register of wills and authorities to adopt.

(4) Miscellaneous register.

And in the offices of registrars—

(5) Register of deposits of wills.

In answering the question now before us we are concerned only with books 1 and 4, because in book 1 is entered (*i. e.*, copied *in extenso*) all documents or memoranda which relate to immovable property and are not wills, and in book 4 is entered in the same manner all bills, notes, bonds, and the like securities which the parties have voluntarily caused to be recorded or registered.

The Indian law (act 3 of 1877 of the legislative council of India, section 17) renders compulsory the registration, under the system above indicated, of all non-testamentary instruments which purport or operate to create, declare, assign, limit, or extinguish, whether in present or in future, any right, title, or interest, whether vested or contingent, of the value of 100 rupees and upwards to or in immovable property in India. It follows, therefore, that the registration of all mortgages is compulsory and the indebtedness created by mortgage is thus recorded. Each mortgage must be registered by the parties in the office of the registrar in whose district the property mortgaged is situate, or upon payment of an additional fee it may be registered in another district office, in which case a copy of the deed is transmitted to the office of the district in which the property lies, and in all cases a copy of the deed is transmitted to the office of the registrar of assurances in each presidency town; and under the law quoted above the record of indebtedness thus created is open to public inspection on payment of a small prescribed fee.

With regard to the record contained in book 4, the miscellaneous register documents entered in it are not open to inspection by the public, but are accessible only to the parties to the particular instrument sought to be inspected. The registration of bills, notes, bonds, and similar securities is optional with the parties—it is an option seldom exercised and forms but a very incomplete and unreliable record of indebtedness.

We now proceed to notice indebtedness created or declared by judgment decree or order of a court of justice, and this subject may be disposed of in a very few words. Each court of justice in India keeps a register of its judgments and decrees, which register is open to public inspection.

In each presidency town the sheriff also keeps a register of all warrants and other processes executed through his office and of all real estate, lands, and property attached by him in execution of such decrees, and each of these registers forms a record of indebtedness available to the public.

Besides the systems above mentioned, no further or other system exists in India of recorded indebtedness, whether mortgages on real or chattel property, liens, or judgments.

LIENS.

Liens "by preference or confession of judgment" is not a term in use or generally understood in this country. We understand by it (*a*) liens voluntarily created by the owner of movable property; (*b*) liens created or established by judgment of a civil court by consent of parties, and on this understanding we proceed to reply to this question. Liens on movable property, including crops, may be created by either of the methods mentioned; but in India a lien created voluntarily over movable property, to be a good lien in law as against the official assignee in bankruptcy of the debtor, must be accompanied by actual possession in the person claiming such lien or some person on his behalf other than the debtor. Except in the case of bankruptcy, a lien unaccompanied by actual possession is good and suitable, and the property subject to such lien is not subject to execution of judgment at the instance of any other creditor. Crops may be hypothecated and a lien created over them, the law relating to such hypothecation or lien being as we have stated it above.

RATIO OF MORTGAGES.

It is absolutely impossible to give the ratio of mortgages and judgments to total relation of taxable and assessed property. There are no official returns made of the monetary value of either mortgages or judgments, and, so far as we are aware, there are no official returns available to public inspection of taxable or assessed property in India.

RECORD OF MORTGAGES.

We have pointed out that act 3 of 1877 of the legislative council of India (the Indian registration act) renders compulsory the registration of all non-testamentary instruments which purport or operate to create, declare, assign, limit, or extinguish, whether in present or in future, any right, title, or interest, whether vested or contingent, of the value of 100 rupees and upwards to or in immovable property. All mortgages of immovable property in India whereby it is intended to secure the repayment of 100 rupees and upwards must therefore be recorded, *i. e.*, registered in the office of a registrar of assurances, the constitution of which we have briefly indicated.

INTEREST.

There is no fixed or prevailing rate of interest on mortgage paper. The rate of interest on mortgages varies in the same way and from the same causes as the rate of other marketable commodities; the rate of interest on mortgages is from time to time affected by the laws of supply and demand, the nature and situation, condition and value of the security offered, and the like. Interest on mortgage securities varies in this country from 5 to 12 per cent. per annum, having regard to the conditions mentioned above. We are inclined to think that 7 per cent. per annum may be taken as a fair average rate of interest upon mortgage securities at the present time.

The courts of law in India allow interest at the contract rate (whatever that contract rate may be, unless grossly excessive or exorbitant) where any contract as to interest exists between the parties up to the date of the commencement of suit, and thereafter the judgment allows interest on the decretal sum at the rate of 6 per cent. per annum. The rate of interest allowed by all courts of justice on its judgments is the fixed rate of 6 per cent. per annum.

MORTGAGE COMPLICATIONS.

Mortgages do not in any way affect the transfer of land titles. As we shall have occasion to point out, mortgages in this country can only be discharged by an instrument in writing, registered or recorded in the same manner as we have already shown is compulsory with regard to mortgages and other instruments creating a charge or lien on land; and, therefore, the only additional obligation imposed upon intended transferees of land is to cause a search to be made in the registers kept in the office of the registrar of assurances for mortgages or other charges of a like nature affecting the title to the land proposed to be transferred.

Registration of documents under the provisions of act 3 of 1877 (the Indian registration act) is, under the law, deemed notice to the whole world of the contents of the document so registered. The transfer-of-property act (act 4 of 1882 of the legislative council of India, section 3), dealing with this subject, provides that a person is said to have "notice" of a fact when he actually knows that fact, or when, but for willful abstention from an inquiry or search which he ought to have made or gross negligence, he would have known it.

FORECLOSURES.

No mortgage in British India can be foreclosed without the assistance of a court of justice, and the courts in this country are very averse to making foreclosure decrees, and rarely, if ever, pronounce such a decree.

The right to a foreclosure decree exists. Section 67 of act 4 of 1882 (the transfer-of-property act) provides that in the absence of a contract to the contrary the mortgagee has, at any time after the mortgage money has become payable to him and before a decree has been made for the redemption of the mortgaged property or the mortgage money has been paid or deposited in court, a right to obtain from the court an order that the mortgagee shall be absolutely debarred of his right to redeem the property "or an order that the property be sold." And the courts, upon the authority contained in the last quoted alternative words, refuse to grant foreclosure decrees, but pronounce decrees for sale of the mortgaged property.

The usual and ordinary remedy upon a deed of mortgage is therefore by sale of the mortgaged property and a decree against the mortgageor personally for any deficiency after such sale. Whether or not the mortgagee can proceed to a sale of the mortgaged property under the power of sale contained in the deed of mortgage or can sell only under a decree of a competent court depends entirely upon—

(*a*) The form of the deed of mortgage.
(*b*) The nationality of the parties.
(*c*) The status of the mortgagee.
(*d*) Where the mortgaged property is situate.

A power conferred by the mortgage-deed on the mortgagee or on any person on his behalf to sell or concur in selling, in default of payment of the mortgage money, the mortgaged property or any part thereof, without the intervention of the court, is valid in the following cases only, viz:

(*a*) Where the mortgage is an English mortgage.
(*b*) Where neither the mortgagee nor the mortgageor is a Hindoo, Mohammedan, or Buddhist.
(*c*) Where the mortgagee is the secretary of state for India in council.
(*d*) Where the mortgaged property or any part thereof is situate within the towns of Calcutta, Madras, Bombay, or Rangoon.

But even if the power of sale is valid and exercisible without the intervention of a court, such power can not be exercised unless and until notice in writing, requiring payment of the principal money, has been served on the mortgageor or on one of several mortgageors and default has been made in payment of the principal money or of part thereof for three months after such service or some interest under the mortgage, amounting at least to 500 rupees, is in arrear and unpaid for three months after becoming due.

It is impossible to give an idea, even approximately, of the expense attending a sale of mortgaged property, whether sold under the direction of the court or under the power of sale contained in the mortgage, because the amount of the expenses depend upon the nature, extent, and value and the condition of the title to each property in each individual case.

INCREASE AND DECREASE OF MORTGAGES.

We are unable to say whether recorded indebtedness is increasing or diminishing in proportion to estimated values, nor do we believe it to be possible to obtain anywhere any material touching upon the matter.

PARTIAL PAYMENTS.

The laws of British India contain no special provision with regard to partial payments on mortgages or other obligations of a like nature; but it follows as a natural sequence, from the provisions of the Indian registration act (act 3 of 1877), to which we have made frequent reference, that so far as concerns land charged by mortgage (having regard to the law as enacted by act 4 of 1882, so far as notice to persons not parties to the transaction is concerned) the only means of recording partial payments on mortgages and the like obligations, and of discharging lands mortgaged from the obligations to the extent of such partial payments, is by an instrument in writing. under the hands of the parties to the transaction, duly registered and recorded in the office of the registrar of assurances under the provisions of act 3 of 1877.

With regard, however, to liabilities created, declared, or arising by or from judgments, partial payments must be recorded. The code of civil procedure (act 14 of 1882 of the legislative council of India) provides as follows:

> SEC. 257*a*. Every agreement to give time for the satisfaction of a judgment debt shall be void unless it is made for consideration and with the sanction of the court which passed the decree and such court deems the consideration to be, under the circumstances, reasonable.
>
> Every agreement for the satisfaction of a judgment debt, which provides for the payment, directly or indirectly, of any sum in excess of the sum due or to accrue due under the decree, shall be void unless it is made with the like sanction.
>
> Any sum paid in contravention of the provisions of this section shall be applied to the satisfaction of the judgment debt, and the surplus, if any, shall be recoverable by the judgment debtor.
>
> SEC. 258. If any money payable under a decree is paid out of court, or the decree is otherwise adjusted, in whole or in part, to the satisfaction of the decree holder, or if any payment is made in pursuance of an agreement of the nature mentioned in section 257*a*, the decree holder shall certify such payment or adjustment to the court whose duty it is to execute the decree.
>
> The judgment debtor also may inform the court of such payment or adjustment and apply to the court to issue a notice to the decree holder to show cause, on a day to be fixed by the court, why such payment or adjustment should not be recorded as certified; and if, after due service of such notice, the decree holder fails to appear on the day fixed, or having appeared fails to show cause why the payment or adjustment should not be recorded as certified, the court shall record the same accordingly.
>
> Unless such a payment or adjustment has been certified as aforesaid, it shall not be recognized as a payment or adjustment of the decree by any court executing the decree.

The debtor loses no benefit if he defaults in part. He will at all times be entitled to the benefit of any part payment or adjustment he may have made, but it will be seen that he will lose the benefit of such part payment if he omits to report to and record the fact of such payment or adjustment to the court and obtain the certificate mentioned in section 258 above set out.

CANCELLATIONS.

The ordinary and, in fact, only form of canceling obligations arising upon (*a*) mortgages and (*b*) judgments is in the case of (*a*) mortgages by a deed of reconveyance in the form given in Prideaux's "Precedents in Conveyancing," altered and modified to suit the requirements of each particular case and duly registered and recorded in the office of the registrar of assurances under the provisions of the Indian registration act 3 of 1877, and in the case of (*b*) judgments, where the payment or adjustment is to the decree or judgment holder direct, by proceedings under section 257*a* or section 258 of the code of civil procedure (act 14 of 1882), or, in case where the judgment is satisfied by execution proceedings, the record of the case in the court by which the judgment was passed or by which the judgment was executed will show the satisfaction and consequent cancellation of the judgment or decree.

PROPORTION OF RECORDED AND UNRECORDED INDEBTEDNESS.

We do not believe it to be possible to obtain even an approximate statement of the existing recorded indebtedness in India or even in Bengal, and it is certainly impossible to obtain any information with regard to indebtedness which is not recorded.

UNITED STATES CONSULATE-GENERAL,
Calcutta, January 14, 1890.

PRODUCTS AND RESOURCES OF NEW ZEALAND.

REPORT BY CONSUL CONNOLLY, OF AUCKLAND.

New Zealand continues to improve in a most hopeful and satisfactory manner. The present decided improvement in nearly every kind of trade and industry is not of that ephemeral character which is usually the offspring of forced or fictitious values, the invariable consequence of which is depression and distress. On the contrary, it is founded upon a permanent and most substantial basis. It is the direct result of confidence and self-reliance on the part of the people, together with a more thorough and practical knowledge of the capabilities and vast resources of the colony. As one of the happy circumstances that have materially contributed toward the dawn of the present improved condition of affairs may be mentioned that of studied economy in matters of government, together with renewed energy and commendable frugality on the part of the inhabitants, an honest and patriotic determination to succeed, coupled with a resolute and laudable desire on the part of Government and people to live within their means. To this more than any thing else do I attribute the much-welcomed buoyancy which is so apparent in New Zealand affairs to-day.

The prevailing and almost universal sentiment throughout the colony is, "No more money shall be borrowed under any pretext whatsoever until some provision is made toward reducing the present indebtedness." If this principle is religiously adhered to, the future of the colony is assured. In the light of the past experience, and the loss and bitter disappointment consequent upon the unnecessary waste that occurred a few years ago, I am forced to the conclusion that New Zealanders, with a full knowledge of the past, will not soon again put their fingers into the fire, and that they will not willingly increase, not only their own burdens, but the burdens of the rising generation, which they certainly would should they again resort to the London money market. I am, however, convinced that all who have an interest in the country and who are extremely anxious for its welfare have wisely determined not to countenance any extension of the present indebtedness; and, in consequence of the very sensible conclusion arrived at in this respect, the people are thus thrown more upon their own resources and compelled to enter upon the struggle of life without the material assistance of a benign Government, upon which they have so largely depended in the past. The result of this policy is the development of the latent resources of the colony in a thoroughly practical and business-like manner. The people are inspired with hope and confidence, fully confirmed in the conviction that there is unmistakably a bright and prosperous future before New Zealand. Under the circumstances, one is almost forced to become imbued with the spirit of enthusiasm that permeates the entire population as to the hopeful view they take of the future of their country, in which view I most heartily concur, provided her citizens will only apply themselves with diligence and patriotism toward the development of the resources and the economical government of their country; for, indeed, without patriotism and national pride in matters of legislation and the faithful administration of the laws no country ever did or ever will become great and prosperous.

It is impossible to appreciate, or have any adequate conception of, New Zealand's preponderating worth over the other "colonies of Australasia" except by comparison. The wonderful productiveness of her soil is, in many respects, perhaps, unequaled by any in the world. I know of no country that will yield as many bushels of wheat, oats, and barley to the acre without the assistance of artificial means as can the soil of New Zealand. The colony is rich in all kinds of minerals, which so far have not been properly developed. The climate is mild, equable, and invigorating, and there are various other natural advantages of which the country is abundantly possessed. It is surprising more is not known abroad of the numerous natural hot springs and lakes of New Zealand. I am confident if the health-restoring properties of these natural springs were generally known it would result in attracting people from all quarters of the globe. I do not know whose duty it is to cause a more widely diffused knowledge of the natural advantages of the colony in this respect, but, wherever the responsibility rests, it would certainly seem to have been considerably neglected.

Inasmuch as there is no doubt as to the curative properties of these springs, I believe it would be money well expended if a proper effort were made toward informing the great outside world of the benefits to be derived from the hot springs of New Zealand. All information of this kind should emanate from or by authority of the Government, so that there would be no question as to the reliability of the information so obtained. With a consistent and energetic system of advertising, setting forth the merits of these springs, I see no reason why New Zealand should not become our invalid paradise. If such a course were adopted, in my opinion, it could not result otherwise than in permanent benefit to the people of the colony, as well as a blessing to those seeking a restoration of their health. I expect in the near future to see either the people or the Government awaken to the important necessity of bringing the medical properties of these springs more prominently before the world.

CROWN LANDS.

The number of acres of Crown lands disposed of during the year was 64,898, the total value of which amounted to $261,985. The total number of acres disposed of from the foundation of the colony up to December 31, 1888, was 19,244,344. There are 36,485 holdings of land under occupancy, ranging in size from 1 to 100,000 acres. Of the latter number there are 26 holdings, containing 100,000 acres, while there are 4 holdings containing upwards of 100,000 acres each.

Of the above number of holdings 11,728,236 acres are freehold and 5,348,838 acres are leasehold. The average rent per acre for lands leased from the Government for pastoral purposes during the year 1888 was from 5 to 31½ cents. There is, however, only one lot of 12,904 acres which brings 31½ cents per acre, the remainder ranging from 14 cents downwards.

AGRICULTURE OF NEW ZEALAND AS COMPARED WITH OTHER AUSTRALASIAN COLONIES.

The total number of acres under crop in February, 1889, was 1,248,109, of which number 357,359 acres were in wheat, producing 9,424,059 bushels, or an average yield per acre of 26.37 bushels. South Australia had 1,605,000 acres sown in wheat, which produced 6,187,000 bushels, an average yield per acre of only 3.85 bushels. It will thus be seen that while South Australia had 1,247,641 acres in wheat more than New Zealand, yet New Zealand produced 3,237,059 bushels of wheat over and above South Australia. Victoria had 1,217,191 acres in wheat, which produced 8,647,709 bushels, or an average of 7.10 bushels per acre. From the above figures it will be seen that Victoria had 860,350 acres sown in wheat more than New Zealand, while the produce of this colony exceeded that of Victoria by 776,350 bushels. New South Wales had in wheat 304,803 acres, which produced 1,450,503 bushels, an average of 4.75 bushels per acre. The number of acres sown in New Zealand exceeded that of New South Wales by 52,556 acres, while the total yield of wheat in New Zealand was much in excess of New South Wales, viz, 7,973,556 bushels. The average yield per acre in West Australia was 10.50 bushels to the acre and that of Tasmania 20.15 bushels.

Oats.—New Zealand produced last year 10,977,065 bushels of oats from an acreage of 367,325, the average yield per acre being 29.89 bushels. The average number of bushels per acre for each of the Australian colonies is as follows: Queensland, 5.65; New South Wales, 13.77; Victoria, 14.20; West Australia, 23.42; Tasmania, 27.97. The combined acreage of all the Australian colonies—241,765 acres—produced 5,905,563 bushels of oats.

From the foregoing figures it will be noticed that the area under the cultivation of oats in New Zealand exceeded the combined area of the Australian colonies by 125,460 acres, while the yield in New Zealand was immensely greater in proportion, being 7,071,502 bushels over and above the combined production of Australia.

Barley.—The average yield per acre of this crop in the Australian colonies last year was: Queensland, 22.94 bushels per acre; New South Wales, 11.08; Victoria, 13.55; West Australia, 14.70, and Tasmania, 23.25. In all of the above colonies the total number of acres under barley was 96,804 acres, which produced 1,359,218 bushels. New Zealand produced 1,402,537 bushels, representing an acreage of only 45,027 acres, or 51,777 acres less than the combined colonies of Australia; yet the yield of these colonies was less than that of New Zealand by 43,319 bushels, while the area under cultivation of this particular crop was over twice as large as New Zealand.

Potatoes.—There were 26,331 acres of potatoes planted in this colony last year, which yielded 133,682 tons, or an average of 5.08 tons per acre. The average in Queensland was 1.90 tons per acre; New South Wales, 2.39; Victoria, 3.04; West Australia, 4.10; and Tasmania, 4.88. Even in this staple article of food, as well as in nearly all others, New Zealand demonstrates the superiority of her producing powers.

TAXATION.

The following is the rate of taxation per head of mean population throughout all the colonies of Australasia for last year, viz, 1888:

Colonies.	Rate per head.	Colonies.	Rate per head.
Queensland	$20.35	West Australia	$16.31
New South Wales	12.26	Tasmania	19.66
Victoria	14.06	New Zealand	16.31
South Australia	11.45		

It will therefore be seen that this colony is the third lowest on the list in the matter of taxation, while it is observable that the productive power of New Zealand is nearly double (and in many instances more than double) that of any of the other Australasian colonies. The taxation and the productive capabilities of a country must always be a matter of serious consideration with intending immigrants, especially those whose intentions are to occupy the lands. It is with exceeding pleasure that I present these facts to those inquiring after such information. It must be gratifying to New Zealanders generally, as well as to others outside the colony who have large interests here, to see that by comparison with her sister colonies New Zealand does not suffer, but that, on the contrary, she compares most favorably, if, indeed, she is not more favorably situated and better circumstanced than any colony to-day under the Southern Cross.

INDEBTEDNESS PER HEAD.

The rate of net indebtedness of each of the Australasian colonies per head of population on December 31, 1888, was as follows:

Colonies.	Rate per head.	Colonies.	Rate per head.
Queensland	$324.54	West Australia	$139.66
New South Wales	197.66	New Zealand	296.25
Victoria	154.12	Tasmania	143.26
South Australia	292.75		

VITAL STATISTICS.

The proportion of deaths to 1,000 of the population in each of the colonies for last year (1888) was as follows:

Colonies.	Proportion.	Colonies.	Proportion.
Queensland	14.66	West Australia	15.91
New South Wales	13.54	Tasmania	14.11
Victoria	15.34	New Zealand	9.43
South Australia	12.09		

The foregoing statement of the death rate in the several colonies is perfectly reliable, being compiled from Government statistics. This colony is certainly placed in a most satisfactory position as compared with other colonies of the Australasian group in respect of the percentage of deaths to 1,000 of population. To the equability of the climate may be attributed the exceedingly low death rate in this colony, and, perhaps, the unmistakable curative properties of the numerous natural hot lakes and springs may have aided materially in producing this happy result.

LIVE STOCK.

The number of horses, cattle, sheep, and pigs in each of the colonies at the close of the year 1888 was as follows:

Colonies.	Horses.	Cattle.	Sheep.	Pigs.
Queensland	324,326	4,654,932	13,144,005	68,994
Victoria	323,115	1,350,660	10,818,575	245,818
South Australia	170,000	430,000	7,150,000	170,000
Tasmania	29,238	142,019	1,430,065	43,227
West Australia	41,390	95,822	2,112,393	25,083
New Zealand	187,382	895,461	15,122,133	369,992
New South Wales	411,368	1,622,907	46,503,469	248,583

From the above table we are enabled to see exactly the quantity of live stock in each colony. The total number of horses in all the colonies, as represented above, is 1,486,819; cattle, 9,211,801; sheep, 96,580,640; pigs, 1,171,697; or a grand total of all the live stock in the colonies of 108,450,-

957, of which number New Zealand alone contributes 16,574,968 head, thus demonstrating conclusively that it is not only a prolific grain and mineral producer, but the grazing capabilities of the colony are equal, if not even superior, to any of the sister colonies, from the fact that there is an abundance of rain each season, which assures a bountiful supply of grass.

GOLD.

Although new gold fields are being opened up from time to time, the export of gold has not materially increased, and is still under $5,000,000 in value, while in the nine palmy years of gold mining following upon 1862 the export averaged nearly $12,500,000. The following figures show the quantity and value of gold entered for duty and exportation from the year 1857 to 1888, both inclusive: Total number of ounces, 11,421,817, valued at $224,218,210. Of the above number of ounces 201,219 were entered for export, the export for 1888 being valued at $4,005,330.

COAL.

The output of coal is, however, rapidly increasing, and for the year 1888 the yield of the New Zealand coal mines amounted to 5,232,832 tons. This mineral is widely distributed throughout the country, but its development so far has chiefly been confined to seams that are favorably situated for the shipment of the coal. The quantity of coal exported during the year was 69,040 tons, while the quantity imported into the colony during the same period amounted to 101,341 tons, thus showing a decrease in imports from the preceding year of 5,889 tons.

SILVER.

The total quantity and value of silver produced in New Zealand from the year 1853 to December 31, 1888, both inclusive, was 497,868 ounces, of the value of $623,960. The number of ounces produced during 1888 was 403, the value of which was $355.

Total value of gold and silver produced in the colony during the above period amounted to $224,842,170.

KAURI GUM.

I am informed that this gum is found in no other part of the world outside of New Zealand. It forms a very extensive item of export and furnishes employment to a large number of laborers. It is not, however, very remunerative, as the most diligent worker can not average to exceed $1 to $1.50 per day. Out of this he must find board, lodging, clothes, tools, etc.; in fact, he must find every thing out of his earnings. The gum diggers live in the most primitive manner, and if they have families, which is frequently the case, they have to endure many hardships indeed. Living in little tents or rudely constructed *whases* (Maori name for hut), away from civilization, with nothing to cheer them, nothing to gaze upon but a dreary waste of barren and desolate-looking "gum field"—even the beauties and charms of nature have departed from the scene — as wherever gum is found the land is invariably worthless and unproductive, with nothing upon it but scrubby bush and very scanty vegetation. The gum digger plods along day by day, eking out a most miserable existence, living from hand to mouth, with no hope or prospect in the future of any natural advancement in his condition; yet many fly to the gum fields in preference to accepting other kinds of labor, for the reason that it furnishes them a sure living, meager and poor as it may be. Another reason—and it is, perhaps, the principal one—why so many are to be found on the gum fields, is that there are no "bosses" to annoy them. They can come and go when they please. They are free from all the disturbing elements of society; they pay neither rent nor tribute to any man, nor do they acknowledge any master, unless it is hunger.

There is, however, one person on the gum fields of New Zealand who invariably becomes quite well off, if not wealthy, that is the store-keeper. To him the digger must come for supplies, and inasmuch as there is no competition, there is, therefore, no limit to what the store-keeper may charge, except the digger's ability to pay or his own conscience (the latter, it is admitted, is very elastic). For him the digger labors all the year round. Still, unfavorable as are the circumstances of the gum digger, it is surprising the number of men who prefer this kind of labor to that of the farm or factory, or the many other avenues where labor can find comfortable and remunerative employment. Notwithstanding the fact that gum digging is not very profitable, still, it is a great boon to the New Zealand laborer, as in times of labor depression, when it is exceedingly hard to find employment, a man may go to the gum fields, uninviting as they are, and with diligence be able to keep the wolf from the door.

From the following figures may be gleaned the extent and value of the gum trade of New Zealand: From 1853 to 1888, inclusive, there has been 119,673 tons of gum produced, valued at $23,432,670. The quantity produced last year amounted to 8,482 tons, valued at $1,142,865. Four thousand six hundred and ninety-three tons of this article were exported to the United States, valued at $1,009,406.

BANKRUPTCIES.

Perhaps the best evidence and the surest indication of returning prosperity to New Zealand is the perceptible decrease in the number of bankruptcies as compared with former years. During the year 1888 the number of petitions in bankruptcy was 951; in the year 1886 there were 1,046 cases; and in 1887 the number of petitions amounted to 992, a decided and very satisfactory decrease from that of the previous year of 54. It is therefore gratifying to note that not only are the number of bankruptcies happily becoming very much lessened, but the liabilities also. Those of last year were much reduced from that of previous years. The failures for 1885 amounted to the sum of $2,334,980, and, for the year 1886, $3,048,620 was the amount; while for 1887 the failures were considerably reduced from those of the preceding year, being $2,768,755, showing a net decrease for the twelve months of $279,865. The year 1888 opened up brighter and more hopefully than any of its predecessors in this respect, and closed amid the congratulations of the colonists when it was definitely ascertained that the number of bankruptcies was steadily decreasing. The publication of the annual Government balance-sheet, which represented a small surplus instead of the usual deficit, confirmed the people in the belief that the crisis had passed. This evidence of returning prosperity acted like magic on the hitherto depressed spirits of the inhabitants. It encouraged them to renewed efforts toward retrieving their fallen fortunes, in which, it is most pleasing to state, they are admirably succeeding. This happy result was produced by rigid economy, not only in Government affairs, but by frugality and much self-denial in individual matters as well. The number of petitioners in bankruptcy for 1888 was 844, or 148 less than that of the previous year, thus showing a steady decrease in the number of bankrupts. The reduction in liabilities was even greater in proportion than the number of failures, which, perhaps, is another indication of returning confidence. The amount of failures for last year was much less than any of the preceding years since 1885, being only $2,225,300, or $543,455 less than the year 1887.

The gradual but very satisfactory reduction in the number of failures as enumerated above is, to the close and impartial observer of passing events, perhaps the most conclusive evidence that the days of depression in New Zealand are over, and that the near future will bring forth a period of permanent prosperity, far exceeding the most sanguine expectations of the staunchest believers in the future prosperity of the colony. There can be no doubt of the future if the extraordinary productive powers of the country are carefully and intelligently developed.

IMMIGRATION.

It has cost the Government for assisted immigration from 1871 to 1888, inclusive, the round sum of $10,549,860; of this amount $70,840 was expended last year.

HOSPITALS.

The cost of maintaining the hospitals of New Zealand for the year ended March 31, 1889, amounted to $367,700.

BANKS.

The total liabilities of all the banks in this colony on December 31, 1888, were $60,541,765, while the assets were $93,547,220 and the net profits amounted to $14,693,905. The total amount of money to the credit of depositors in the savings-banks of the colony on December 31, 1888, was $3,216,255. Of the above amount the sum of $2,146,480 was deposited during 1888 and $2,036,805 had been withdrawn during the same period, thus leaving a balance to the credit of depositors in all the banks of the colony at the end of the year of $1,179,450.

The average number of depositors in the whole of the Australian colonies is 16.56 for each 100 of the population, the average amount to the credit of each depositor being $125, while in New Zealand the proportion is 16.96 per 100 of the population and the average amount to the credit of each depositor is $130, or $5 for each depositor in excess of the Australians. The total capital of all the Australian banks is $122,500,000, and the deposits placed with them amount to the enormous sum of $676,000,000. This showing, I am sure, will compare favorably with any country in the world.

TRADE STATISTICS.

One of the most commendable features in connection with public administration of the Australasian colonies is the care and rigid impartiality exercised in the preparation of statistical information relative to the agricultural, industrial, commercial, social, and religious conditions of the people and other matters of public interest. The registrar-general's department in each colony is presided over by an officer of great ability, and the customs, postal, property tax, railway, and other administrative departments of the Government employ in their transactions with the public forms which produce a volume of statistical information of the most valuable kind. These forms are very much alike in their main features in all the colonies and the statistics thus become interchangeable, and are used with perfect confidence by the registrars-general of the several colonies for purposes of comparison notwithstanding the great rivalry which exists and the loud trumpeting of the special claims of each colony with a view to attracting an influx of immigration and capital, which all the colonies recognize must be at the root of all progress and prosperity. The leading totals relating to trade and agriculture are published in a fragmentary form periodically throughout the year. The details and comparative tables, however, necessarily occupy many months in their preparation. The final batch of New Zealand statistics for 1888 and the comparative returns from Australia have, in fact, only been circulated within the past fortnight. They are, however, very complete, and furnish an immense amount of information which is of the greatest possible interest to manufacturers and merchants in the United States, by whom the importance of these colonies as an outlet for trade is very far from being properly recognized.

In support of the statement just advanced it may be well to quote a few figures before proceeding to deal more particularly with further statistics of New Zealand. It should be borne in mind that the seven colonies comprised in the Australasian group have now a population of close upon 4,000,000. The actual figures at the end of 1888 were 3,678,046. During that year they imported goods to the value of $311,284,405, chiefly manufactured articles. Of this vast trade nearly one-half, namely, $130,687,920, fell to the share of the United Kingdom. The total amount supplied by foreign states was only $32,864,650, and yet all nations compete on precisely equal terms, the same rates of duty being charged upon goods from England as from any foreign country. The balance of trade is made up of interchanges between the several colonies of the group and other British possessions.

TRADE WITH THE UNITED STATES.

The details of the trade with the United States in 1888 for the whole of the colonies are not yet available, but those relating to New Zealand are far from being of a satisfactory character. The registrar-general states:

> The total trade with the United States decreased in value by $307,155. There are considerable yearly fluctuations in the amount of this trade, but, on the whole, there is no expansion—no growth; but, on the contrary, there is a tendency towards contraction. Of the total exports to America in 1888 ($1,618,580) kauri gum furnished $1,037,035; gold, $286,465; and spices, $250,000; leaving only $45,080 for distribution among other articles. The United States are still closed against us as a market for the chief article we desired to export thither—wool—the value of that taken in 1888 having been only $150.

Certainly, the quantity of wool shipped from this colony to the United States is very insignificant when we take into consideration the quantity the woolen manufacturers of America must purchase annually from foreign countries. New Zealand is essentially a wool-producing country, and it seems almost incredible that during all of last year only $150 worth of wool had been exported to the United States. I am at a loss to understand why it is that those who have to go to the London wool market to purchase supplies for our American manufacturers do not come directly to New Zealand and make their purchases here; by so doing the brokerage of the London middle-man could certainly be saved. In addition to the advantage referred to, it would furnish employment to American vessels and seamen, which, of itself, should be a matter of patriotic consideration with every man who has the interests and prosperity of his country at heart. If such a course as I have suggested were adopted by American wool buyers and manufacturers generally, I am convinced it would be instrumental in developing and encouraging a trade that at present is evidently on the decline, owing to the apparent indifference of the people of the United States. The cost of freighting the wool from England would also be saved to the American buyer if he bought directly in the New Zealand market.

The superiority of New Zealand wools is too well known to need any extended notice in this report. In connection with this important subject it may be proper to state that other countries fully appreciate the importance of coming into the Australasian markets for the purchase of their wool supplies. Referring to this, the London Daily News complains that the practice of holding wool sales in the colonies is depriving the London wool rooms of their best continental customers. Within the last few years the continental buyers have been attending the Australasian wool sales and shipping direct to Marseilles or to Antwerp, thereby saving the London brokerages and other charges to which they had been subjected. They are thus placed in a better position to compete with the British manufacturers. If this be true of the continental buyers and manufacturers, why does it not apply with equal force to the United States? At the great wool sales in Melbourne French, Germans, and Belgians have latterly been operating, and the result of this new departure is the complaint of the Daily News already referred to.

I would respectfully but earnestly urge upon American woolen manufacturers the advisability of at least giving this subject their serious consideration, believing, if they do, it will result most favorably—even beyond their most sanguine expectation.

The following table shows the value of the total trade with the United States in each of the past eight years, the value of exports and imports to and from the Atlantic and Pacific ports being separately given:

Year.	Imports from—		Exports from—		Total.
	Atlantic ports.	Pacific ports.	Atlantic ports.	Pacific ports.	
1881	$1,510,690	$207,535	$583,145	$1,195,790	$3,497,160
1882	1,990,765	326,700	632,915	1,340,505	4,490,885
1883	1,789,355	306,895	792,130	1,362,815	4,251,195
1884	1,500,925	241,860	919,595	152,150	2,814,630
1885	1,834,365	173,295	650,265	1,374,125	4,032,200
1886	1,522,855	163,755	834,630	402,370	4,273,610
1887	1,316,885	176,595	1,206,940	840,460	3,541,080
1888	1,429,320	186,025	1,021,510	597,070	3,233,925

It will be observed, however, from these figures that, although the total trade between the United States and New Zealand has decreased, the colony furnishes an improving market for articles of American produce and manufacture, the imports from the United States in 1888 being $1,615,345, as compared with $1,493,680 in 1887, necessitating gold shipments to balance the accounts between imports and exports. These facts were, indeed, employed with great force in the Colonial Parliament by the opponents of the subsidy paid to the San Francisco mail service, who maintained that the colony was paying a large amount per annum simply for the purpose of fostering a trade which was wholly in favor of the United States. These arguments prevailed to such an extent that a resolution was carried by a large majority determining to discontinue Government support to the Pacific Mail service; in fact, the line was only saved through the intervention of the Government of New South Wales, which, upon its own responsibility, renewed the contract for a year, trusting to the ratification by the New Zealand Parliament of an arrangement which was entered into by the Government of the colony for a continuance of the subsidy upon a modified basis for the term named in order to afford time for the reconsideration of the whole question.

New Zealand not only originated this service eighteen years ago, but has made extraordinary sacrifices to maintain it. For many years it took the whole cost upon itself while negotiating for the co-operation of the United

States and the other colonies. The story of the first service, carried on in American steamers under contract with Mr. W. H. Webb, is, perhaps, one of the most striking and suggestive narratives of our American mercantile enterprises defeated through the prevailing apathy of the Government in matters relating to the extension of the foreign trade of the United States. After the collapse of this line followed the attempt to carry on the service by means of a purely English line of steamers, to be succeeded by a line in which English ship-owners worked under the ægis of an American company. Hampered on the one side by restrictive navigation laws, which prevented ship-owners from competing upon equal terms with British rivals, and discouraged on the other hand by the refusal of Congress to lend any aid to an enterprise for the inauguration of which a colony like New Zealand, with only a few hundred thousand inhabitants, contracted to pay a company of American ship-owners the large sum of $250,000 per annum as a mail subsidy, the steam service between the Australasian colonies has led a precarious existence, until the absence of any thing like a reciprocal feeling and co-operation on the part of the United States Government has produced a sentiment akin to animosity where there existed previously the most pronounced good-will and an earnest desire, testified by sacrifices of the most remarkable character, to open up trading relations.

There is very little doubt that but for the energy and enterprise displayed by the Oceanic Steam-ship Company (J. D. Spreckles & Bros.) the steam service between the United States and the Australasian colonies would be numbered among the things of the past, thus adding by its demise to the lamentable figures which exhibit the decline in the foreign shipping trade of the United States from 75.2 in 1856 to 13.44 in 1888 (*vide* report of the commissioner of navigation).

The policy adopted by the British Government and the colonies in dealing with their mercantile marine stands in noted contrast to that pursued by the United States, and, indeed, the results are very striking. Besides the subsidy paid to the Oceanic Company for the Pacific service, the Government of New South Wales, in conjunction with the other Australasian colonies, joins the Imperial Government in the payment of a heavy mail subsidy trading to Australia via the Suez Canal. The New Zealand Government also subsidizes a line of fast steamers trading between the colony and London, calling at Rio de Janeiro on the homeward voyage and at the Cape of Good Hope on the outward voyage.

Some of the colonies are strongly protectionist, and, owing to the possession of splendid timber for ship-building—the Kauri pine can not be excelled in the world for that purpose—this industry was one of the very first to become established, and attained considerable proportions at a very early period. Colonial statesmen, however, recognized (1) that the commerce of a country is of very much greater importance than ship-building; (2) that by removing all restrictions from the ship-owning interests the local ship-building trade would, in the long run, be most certain to receive permanent encouragement through the growing wants of a prosperous shipping trade; (3) that movable property like ships can not be made subject to local restriction laws. An example which will fairly illustrate the latter point is afforded in connection with the New Zealand property tax. This tax is leviable upon every discription of capital and property (real and personal) within the colony. It was seen, however, that if any attempt were made to enforce it against ship-owners, they would simply transfer their vessels from the New Zealand register to that of some port in an adjacent colony where such a tax was not imposed or enforced. The legislature, therefore, wisely refrained from pursuing so suicidal a course which would strangle its ship-owning interests by exempting vessels from the tax.

SAIL VS. STEAM.

The shipping returns of the colonies exhibit a marked tendency towards the substitution of steamers for sailing vessels. The following figures show the number and tonnage of the sailing vessels and steamers registered at the ports of Australia, Tasmania, and New Zealand on the 30th of June, 1885, 1886, 1887, and 1888:

Year.	Sailing vessels.		Steamers.	
	No.	Tonnage.	No.	Tonnage.
1885	1,894	229,765	869	126,680
1886	1,935	233,256	924	136,761
1887	1,947	238,700	965	141,152
1888	1,907	219,219	995	148,069

New South Wales, where the fiscal system adopted is based on free-trade, heads the list of ship-owning colonies with a total of 1,124 vessels of 127,760 tons. New Zealand comes next in the list with a protective system and 518 vessels of 64,859 tons. Victoria follows with 391 vessels of 82,476 tons. South Australia has 323 vessels of 36,928 tons. The total number of vessels on the registers of all the Australasian colonies is 2,874, representing 354,565 tons, net.

It is instructive to compare the ship-owning interests of the colonies with those of the United States. The totals of the entire tonnage of the sailing and steam vessels registered in the United States at the close of 1888 amounted to 21,273 vessels of 3,772,419 tons. Now, estimating the population of the colonies at about one-fifteenth of that of the United States, it will be noted that if the mercantile marine of the latter country had been proportionate to that of the Australasian colonies there should have appeared upon the registers 43,110 vessels (double the number recorded in the report of the commissioner of navigation) aggregating 5,318,475 tons. When it is considered that American capitalists should be able to cope more successfully with foreign ship-owning interests than these comparatively small colonies, it must be acknowledged that these figures appear to indicate the existence of injurious influences, which ought to receive the earnest attention of our statesmen. If we would regain our lost position in the commerce of the world, it is self-evident we must pursue a more liberal policy toward the ship-building and ship-owning interests of the country and encourage established lines of communication and commerce. It is only by comparison with other nations that our real position, our insignificence in the commercial world, is observable. It is much to be regretted that the comparison is any thing but satisfactory. At the same time it must not be overlooked that, owing to the long coast-line of the colonies, affording water carriage to a much larger proportion of the population than can be reached in the same manner in the United States, the coast shipping trade is necessarily greater pro rata than in America. The effect of insularity and a large seaboard is observable in the larger number of ships registered in New Zealand than in Victoria, although the latter colony is more populous and possesses a much greater commerce. The reason is simply because of the very limited extent of the coast trade in Victoria, while the bulk of the foreign trade is carried in British bottoms.

ENLARGED NEW ZEALAND EXPORTS.

Before leaving this subject I would advance one other example of the influences at work in various parts of the world adverse to the American ship-owning and mercantile interests. For some years past the European mails for the French colony of Tahiti have been carried by American schooners, trading to San Francisco, under subsidy from the Tahitian Government. American flour and other merchandise have by this means become firmly established in the Society Islands. But meanwhile, under subsidies from the New Zealand Government, two lines of steamers have become regularly established in the South Pacific Island trade, one of them including Tahiti in its routes. The result is that during a recent visit to New Zealand the governor of Tahiti was endeavoring to arrange with one of these steam-ship lines for a mail service to supersede that hitherto carried on by means of the American schooners, the contract with which is on the eve of expiring. It is hardly necessary to add that this change will also involve the substitution of colonial products and merchandise for the trade which has hitherto been almost wholly supplied by the United States. The export returns for the year 1889, general totals of which are now available, show a remarkable enhancement in the value of New Zealand products sent abroad. The total export for 1889 was $45,615,865, being an increase of $6,823,240 over 1888; and the exports of that year in turn were $4,500,780 more than the year that preceded it. The colony thus received upwards of $11,125,000 more for the products it sent abroad in 1889 than in 1887. This is not altogether due to increased production, although the volume under nearly all heads is considerably larger, but there has been a considerable enhancement in the prices of the chief staples of the New Zealand export trade. Wool, the leading article of all, has notably risen, and there has sprung up an unprecedented demand for flax or hemp. The details are not yet available, but when they come they will show that from an export of about 1,000 tons in 1885, which had increased to 4,000 tons in 1888, the export of hemp has grown materially during the year just ended. A large proportion of the shipments of this product has gone to the United States direct, while American houses are also large buyers in the London market. Seven tons of green leaf are required for the production of 1 ton of dressed fiber, and we may well question whether the tracts covered with wild flax are equal to the present rate of cutting, and if the demand continues settlers will have to consider seriously the problem of cultivation. But flax, if carefully cut, grows up again, producing a full head of mature leaf in three years, so that, although the leaf is being cut at a tremendous rate on many areas, it is simultaneously growing up again with great rapidity and luxuriance on others, and, although the output may overtax the supply of green leaf and cause some diminution in the production, no serious lapse need be feared. The other product in which Americans are largely interested, namely, kauri gum, as yet shows no sign of diminished supply, although the resin must now be very much less easily obtained by the army of diggers already referred to (Europeans and Maoris) who devote themselves to its collection; and, as there is no means of replenishing the natural stores of this product, the time must come, and perhaps it is not far distant, when the gum will get very scarce and dear.

The colony continues to maintain its position as a large grain-producing country; its exceedingly high average per acre is due mainly to its superiority of climate and fertility of soil, giving it an immense advantage over the adjacent colonies.

The harvests which are now being gathered are reported to be unusually good in all the colonies, but the surplus for export can not be ascertained, as the agricultural statistics are not available until February, when the yields can be calculated with some approach to accuracy.

The dairy industry has been materially stimulated by the adoption of the factory system, and New Zealand may hereafter be counted upon as a formidable competitor in the English markets.

The most remarkable growth of trade is that which has taken place in the export of frozen meat, which, from a beginning of 15,244 cwts. in 1882, had grown to the vast export of 552,298 cwts., valued at $3,140,000, in 1888. The exports for 1889 show still greater increase, but the figures are not yet available to enable me to present the actual increase for 1889 with any degree of accuracy. Additional steamers fitted with refrigerating chambers have been placed in the New Zealand trade. The export of canned meats is also increasing, and efforts are being made to place fruit upon the London market during the months when the stocks of northern fruits are almost exhausted, which the seasons in the northern hemisphere enable the Australasian colonies to do very successfully.

Reviewing the financial and industrial position of New Zealand generally, it affords every ground for the expectation that a period of steady prosperity is before the colony. Its products, increasing in bulk, are meeting with a steady and increasing demand; new markets are being opened up, and, while the internal communication is improving, much better facilities are afforded for supplying foreign markets.

The fresh meat and butter of New Zealand are as much a fact in the markets of England as Scotch mutton or Irish butter.

The manufacturing industries of the colony are steadily developing under a protective tariff system averaging from 20 to 25 per cent. The Government has benefited by the general improvement in trade, its finances exhibit a surplus, and the country feels itself able to rely upon its own resources, without pursuing the policy which has been adopted for so many years of creating a fictitious prosperity by the construction of great public works with borrowed capital. All these circumstances justify a very hopeful view of the immediate future of the colony.

JNO. D. CONNOLLY,
Consul.

UNITED STATES CONSULATE,
Auckland, December 31, 1889.

ABOLITION OF FORCED LABOR IN EGYPT.

REPORT BY CONSUL-GENERAL SCHUYLER, OF CAIRO.

By a Khedivial decree dated December 19, 1889, which has just been published, and of which I have the honor to inclose a copy and a translation, the Egyptian Government has abolished the oppressive system of the corvee or forced unpaid labor for public works, and has levied a special tax not to exceed 22½ cents per acre, or a total of $750,000, in order to bear the expenses of hired labor and of contracts. This is unquestionably a very great reform. Forced unpaid labor existed in Egypt in the earliest known times, but, except for the building of the pyramids and the other great monuments, it was probably no great burden upon the population. Up to the present century the land produced only one crop a year, which was sown in November, after the Nile had fallen, and required little care until the harvest in April. The peasants had not much to do at other times, and they could not be better employed than in cleaning out the canals and in mending the dikes and embankments which protected them from inundation and ruin.

In the beginning of the present century Mehemet Ali introduced the culture of cotton and sugar on a large scale and the condition of things became changed. These crops could not be flooded at high Nile, nor left dry at low Nile; they needed to be watered moderately all the year round. For this it was necessary to dig a series of summer canals which could take in the water of the lowest Nile. As the silt left by the floods was very great, sometimes 10 feet deep, these canals had to be cleaned yearly; and as the canal had to be closed the bottom was never dry, and the work was exceedingly hard. At the same time the peasants' labor became valuable, for they were needed to hoe and weed the fields, for which they could get paid. Foreigners who felt sure of the protection of their consuls refused to allow their men to be drafted. Native pashas and great proprietors followed suit, and the burden fell still more unequally upon the poor. In the delta the available hands were insufficient for the work, and it became necessary to draft men from Upper Egypt. People were thus torn from their homes to work without pay in the pestilential mud of the delta canals. Badly fed and badly provided for, as they were, the sickness and mortality were great. Often they were never sent back to their homes.

The present Khedive was struck with the wretchedness caused by this system, and soon after his accession convoked, in 1880, a general assembly to consider the question of its abolition. This assembly, which was composed of more than three hundred notables and high officials from all parts of Egypt, found that the reform could not be made, as it was impossible to find contractors for the necessary work and the use of machinery and mechanical appliances was not sufficiently familiar to the workmen.

All that could be done then was to introduce a system by which men liable to the corvee could secure exemption by the payment of a fixed sum annually. Even this was unsatisfactory, as many rich proprietors neither sent men nor paid exemption money.

When the regulation of irrigation was seriously and systematically set about in 1884 by English hydraulic engineers who had had experience of similar work in India, and were accustomed to labor-saving appliances, it was soon found that the corvee was insufficient for the necessary work. A grant of $1,250,000 yearly was devoted to hiring labor in addition to the corvee, but even with the use of dredgers and other machinery indispensable work could not be finished when needed. The insufficiency of the corvee and the success of paid labor, of dredging and irrigation companies, as well as of private contractors, were important factors in bringing about the reform, which is therefore due in great measure to the persistent and untiring efforts of Sir Colin Scott-Moncrieff, under secretary of state in the ministry of public works.

The sum of $750,000, the amount intended to be raised by taxation, is to take the place of about $555,000 annually raised by the corvee exemption; of the water tax in Upper Egypt along the Ibrahimieh Canal, which last year amounted to $70,000; and of the new special tax on the lands of the domains and of the Daira Sanieh, which was, in fact, paid by the treasury itself. The former sum of $1,250,000 will still continue to be paid out of the ordinary resources of the State.

This measure, before being adopted, was submitted to the consideration of the General Assembly (composed of the legislative council and the assembly of notables), which had just been elected and was specially convoked for this purpose alone. The Khedive opened the assembly with a speech in Arabic, of which the following is the important part:

The object for which we are assembled is of the utmost importance to the country and is extremely profitable to all, especially to the poorer classes. It relates to a humanitarian project which has always been the object of my hopes, *i. e.*, the total abolition of forced labor, from which the inhabitants of Egypt will now be freed by the project which will be submitted to you by the president of the council. I am convinced that you will consider it carefully and appreciate its utility, guided only by the desire for the progress and prosperity of the country, which is and always will be my highest aim.

In the discussion which followed Riaz Pasha, the prime minister, referred to the project of refunding the privileged debt, by which the interest would be reduced from 5 per cent. to 4 per cent., giving an economy of about $800,000. If this could be done, the Government would forego the proposed tax and devote that saving to the abolition of the corvee without further cost to the people. For this conversion the consent of the great powers is necessary, and that consent has already been given by all except France.

EUGENE SCHUYLER,
Consul-General.

UNITED STATES AGENCY AND CONSULATE-GENERAL,
Cairo, December 26, 1889.

TRANSLATION OF THE DECREE ABOLISHING THE CORVEE.

[Inclosure in Consul General Schuyler's report.]

We, Khedive of Egypt, on the proposition of our council of ministers, and in view of the resolution of the General Assembly, decree:

ARTICLE 1. Forced labor is abolished in the whole of Egypt.

ART. 2. The keeping and guarding of dikes and other works, as well as works of emergency in case of danger during the rise of the Nile, continue to remain at the charge of the population.

ART. 3. Forced labor, as well as the exemption money (corvee ransom), are replaced by the establishment on the *ouchouri* as well as on the *kharadji* lands of a special maximum tax of 4½ Turkish piasters per feddand, the product of which must not exceed 150,000 Egyptian pounds a year. The distribution of this tax will be made by an ulterior decree, rendered on the proposition of our council of ministers with the approval of the legislative council.

ART. 4. The product of this special tax will be employed, with the authorization of the commissioners of the debt, according to the conditions prescribed in our decree of June 14, 1889, for the sum of 250,000 Egyptian pounds provided for in said decree.

ART. 5. Our ministers of finance and public works are intrusted, each in what concerns him, with the execution of the present decree.

Done at Abdeen Palace the 19th of December, 1889 (25 Rabi-Aker, 1307).

(Signed,) MEHEMET TEWFIK.

By the Khedive:
The President of the Council of Ministers, Minister of Finance,
(Signed,) RIAZ.
The Minister of Public Works,
MOHAMMED ZEKI.

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    (The first and second lines of Consul-General Crawford's "Russian Cereal Trade," on page 503, in Consular Reports No. 114, which read as follows: "The preceding figures show that in Russia the production of rye is nearly as great as that of wheat," should, according to the figures referred to, read, "nearly three times as great as that of wheat," although the text is printed just as it was written by the consul-general, who is usually very clear and correct in his statements.)
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